

=> fil reg

FILE 'REGISTRY' ENTERED AT 17:16:48 ON 23 MAY 2007

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STRUCTURE FILE UPDATES: 22 MAY 2007 HIGHEST RN 935655-41-7

DICTIONARY FILE UPDATES: 22 MAY 2007 HIGHEST RN 935655-41-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

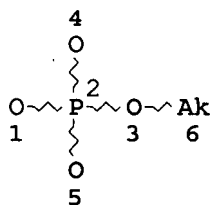
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> d 117 que stat

L5 SCR 2043

L7 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 6

DEFAULT MLEVEL IS ATOM

GGCAT IS SAT AT 6

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS M1-X12 C AT 6

GRAPH ATTRIBUTES:

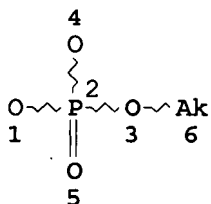
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L10 28990 SEA FILE=REGISTRY SSS FUL L7 NOT L5

L11 STR



```
CONNECT IS E1 RC AT 6
DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 6
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1-X12 C AT 6
```

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 6

L13	SCR 2040
L15	STR

$$\begin{array}{c} 4 \\ \text{Ak} \\ \sim \\ \text{Ak} \sim \text{NH} \sim \text{Ak} \\ 1 \quad 2 \quad 3 \end{array}$$

```
CONNECT IS E1 RC AT 1
CONNECT IS E1 RC AT 3
CONNECT IS E1 RC AT 4
DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 1
GGCAT IS SAT AT 3
GGCAT IS SAT AT 4
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1-X5 C AT 1
ECOUNT IS M1-X5 C AT 3
ECOUNT IS M1-X5 C AT 4
```

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 4

L17 0 SEA FILE=REGISTRY SUB=L10 SSS FUL L11 AND L15 AND L13

```
100.0% PROCESSED      1194 ITERATIONS
SEARCH TIME: 00.00.01
```

0 ANSWERS

L5	SCR 2043
L7	STR

$$\begin{array}{c} 4 \\ | \\ \text{O} \\ | \\ \text{O} \sim \text{P} \sim \text{O} \sim \text{Ak} \\ | \quad | \quad | \\ 1 \quad 2 \quad 3 \quad 6 \\ | \\ \text{O} \\ | \\ 5 \end{array}$$

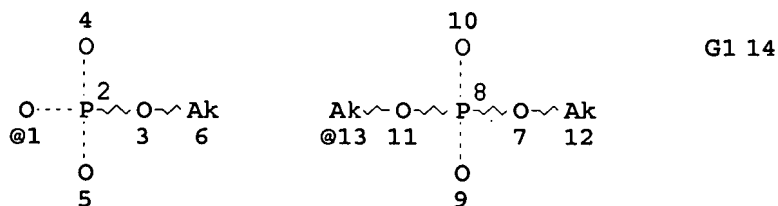
MHuang REM4B31 571-272-3952

CONNECT IS E1 RC AT 6  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS SAT AT 6  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS M1-X12 C AT 6

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L10 28990 SEA FILE=REGISTRY SSS FUL L7 NOT L5  
 L20 STR



VAR G1=1/13

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 6  
 CONNECT IS E1 RC AT 12  
 CONNECT IS E1 RC AT 13  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS SAT AT 6  
 GGCAT IS SAT AT 12  
 GGCAT IS SAT AT 13  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS M1-X12 C AT 6  
 ECOUNT IS M1-X12 C AT 12  
 ECOUNT IS M1-X12 C AT 13

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L22 2924 SEA FILE=REGISTRY SUB=L10 SSS FUL L20

100.0% PROCESSED 7488 ITERATIONS  
 SEARCH TIME: 00.00.01

2924 ANSWERS

=> d his nofile

(FILE 'HOME' ENTERED AT 15:57:01 ON 23 MAY 2007)

FILE 'HCAPLUS' ENTERED AT 15:57:08 ON 23 MAY 2007

L1 1 SEA ABB=ON PLU=ON US2006155048/PN

FILE 'REGISTRY' ENTERED AT 15:57:35 ON 23 MAY 2007

L2 7 SEA ABB=ON PLU=ON (121-44-8/BI OR 3138-43-0/BI OR  
 36047-43-5/BI OR 42610-78-6/BI OR 79-10-7/BI OR 79-41-4/B  
 I OR 9011-14-7/BI)

L3 FILE 'LREGISTRY' ENTERED AT 15:57:43 ON 23 MAY 2007  
STR

L4 FILE 'REGISTRY' ENTERED AT 16:03:57 ON 23 MAY 2007  
L5 48 SEA SSS SAM L3  
L6 SCR 2043  
L7 50 SEA SSS SAM L3 NOT L5  
L8 STR L3  
L9 50 SEA SSS SAM L7  
L10 50 SEA SSS SAM L7 NOT L5  
28990 SEA SSS FUL L7 NOT L5  
SAV L10 TEMP SAS178/A

L11 FILE 'LREGISTRY' ENTERED AT 16:18:18 ON 23 MAY 2007  
L12 STR L7  
STR

L13 FILE 'REGISTRY' ENTERED AT 16:20:17 ON 23 MAY 2007  
L14 SCR 2040  
L15 9 SEA SUB=L10 SSS SAM L11 AND L12 AND L13  
L16 STR L12  
L17 DIS  
L18 0 SEA SUB=L10 SSS SAM L11 AND L15 AND L13  
L19 0 SEA SUB=L10 SSS FUL L11 AND L15 AND L13  
L20 STR L7  
L21 50 SEA SUB=L10 SSS SAM L18  
L22 STR L18  
2924 SEA SUB=L10 SSS FUL L20  
SAV L22 SAS178S1/A  
L23 1 SEA ABB=ON PLU=ON 121-44-8/RN  
L24 1 SEA ABB=ON PLU=ON TRIMETHYLAMINE/CN  
L25 1 SEA ABB=ON PLU=ON TRIPROPYLAMINE/CN  
L26 1 SEA ABB=ON PLU=ON TRI-ISO-PROPANOLAMINE/CN  
L27 1 SEA ABB=ON PLU=ON TRIBUTYLAMINE/CN  
L28 1 SEA ABB=ON PLU=ON TRI-TERT-BUTYLAMINE/CN  
L29 1 SEA ABB=ON PLU=ON TRI-SEC-BUTYLAMINE/CN  
L30 7 SEA ABB=ON PLU=ON (L23 OR L24 OR L25 OR L26 OR L27 OR  
L28 OR L29)

L31 FILE 'HCAPLUS' ENTERED AT 17:09:08 ON 23 MAY 2007  
L32 12174 SEA ABB=ON PLU=ON L22  
L33 37055 SEA ABB=ON PLU=ON L30  
L34 116 SEA ABB=ON PLU=ON L31 AND L32  
L35 4750 SEA ABB=ON PLU=ON L22 (L) MOA+ALL/RL  
L36 13651 SEA ABB=ON PLU=ON L30 (L) MOA+ALL/RL  
L37 40 SEA ABB=ON PLU=ON L34 AND L35  
L38 38 SEA ABB=ON PLU=ON L36 AND (1840-2003)/PY, PRY, AY  
L39 QUE ABB=ON PLU=ON STABLE? OR STABILIZ?  
L40 7 SEA ABB=ON PLU=ON L37 AND L38  
31 SEA ABB=ON PLU=ON L37 NOT L39

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 17:17:09 ON 23 MAY 2007  
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FILE COVERS 1907 - 23 May 2007 VOL 146 ISS 22  
FILE LAST UPDATED: 22 May 2007 (20070522/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l39 ibib abs hitstr hitind 1-7

L39 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2005:159893 HCAPLUS  
DOCUMENT NUMBER: 142:199124  
TITLE: Thermal **stabilizer** for plastics  
INVENTOR(S): Ittmann, Guenther  
PATENT ASSIGNEE(S): Roehm GmbH & Co. KG, Germany  
SOURCE: Ger. Offen., 6 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10335578	A1	20050224	DE 2003-10335578	20030731
WO 2005021631	A1	20050310	WO 2004-EP4088	20040417
<--				
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1532202	A1	20050525	EP 2004-728108	200404

17

&lt;--

EP 1532202 B1 20060531

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,  
PL, SK, HR

CN 1697855 A 20051116 CN 2004-80000489

200404  
17

&lt;--

AT 328034 T 20060615 AT 2004-728108

200404  
17

&lt;--

JP 2006524715 T 20061102 JP 2006-500092

200404  
17

&lt;--

US 2006155048 A1 20060713 US 2005-528178

200503  
17

&lt;--

PRIORITY APPLN. INFO.: DE 2003-10335578 A

200307  
31

&lt;--

WO 2004-EP4088 W

200404  
17

OTHER SOURCE(S): MARPAT 142:199124

AB A suitable heat **stabilizer** for polymers, especially PMMA, is a mono- or dialkylated phosphoric acid ammonium salt  $Rn1PO3-(HN+-R32)m$  ( $R1 = Me$  to  $n$ -dodecyl, also  $iso$ -Pr,  $iso$ -butyl;  $R2 = Me$ , Et, ( $iso$ -)propyl, butyl;  $n = 1$  or  $2$ ;  $m = 2$  or  $1$ ), which is added in concns. 0.001-5.0 weight% referred to the polymerizable monomer (mixture). A remarkable increased thermostability with weight loss 2% was observed at  $281^\circ$  compared with  $209^\circ$ , if 99.87 weight% MMA-PMMA was polymerized with 0.08 weight% AIBN and 0.05 weight% di-Me phosphoric acid triethylamine.

IT 121-44-8D, Triethylamine, reaction products with Zelec UN

RL: MOA (Modifier or additive use); USES (Uses)  
(heat **stabilizer**; thermal **stabilizer** for  
plastics)

RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

Et

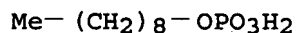
Et-N-Et

IT 36047-43-5D, Monononylphosphate, reaction products with  
triethylamine

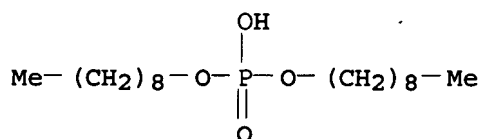
RL: MOA (Modifier or additive use); USES (Uses)  
(mixed with dinonyl phosphate, Zelec UN; thermal  
**stabilizer** for plastics)

RN 36047-43-5 HCAPLUS

CN Phosphoric acid, monononyl ester (9CI) (CA INDEX NAME)



IT 3138-43-0D, Dinonylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with monononyl phosphate, Zelec UN; thermal stabilizer for plastics)  
 RN 3138-43-0 HCAPLUS  
 CN Phosphoric acid, dinonyl ester (8CI, 9CI) (CA INDEX NAME)



IC ICM C08K005-521  
 ICS C08L033-08; C08J005-10  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST phosphorus contg org compd heat stabilizer PMMA; alkylated phosphoric acid ammonium salt polymer heat stabilizer; triethylamine zelec un reaction product thermal stabilizer PMMA  
 IT Organic compounds, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (phosphorus-containing, heat stabilizer; thermal stabilizer for plastics)  
 IT Heat stabilizers  
 (thermal stabilizer for plastics)  
 IT Molded plastics, preparation  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (thermal stabilizer for plastics)  
 IT Polymers, miscellaneous  
 RL: MSC (Miscellaneous)  
 (thermal stabilizer for plastics)  
 IT 121-44-8D, Triethylamine, reaction products with Zelec UN  
 42610-78-6D, Zelec UN, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (heat stabilizer; thermal stabilizer for plastics)  
 IT 36047-43-5D, Monononylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with dinonyl phosphate, Zelec UN; thermal stabilizer for plastics)  
 IT 3138-43-0D, Dinonylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with monononyl phosphate, Zelec UN; thermal stabilizer for plastics)  
 IT 79-10-7DP, Acrylic acid, esters, polymers 79-41-4DP, Methacrylic acid, esters, polymers 9011-14-7P, PMMA  
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

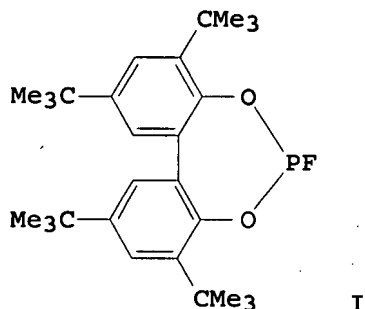
(thermal stabilizer for plastics)

L39 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1993:170303 HCAPLUS  
 DOCUMENT NUMBER: 118:170303  
 TITLE: Crystalline polyolefin compositions with good  
 stiffness and heat resistance  
 INVENTOR(S): Nakajima, Yoichi  
 PATENT ASSIGNEE(S): Chisso Corp., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04246441	A	19920902	JP 1991-32048	199101 31
JP 2896611	B2	19990531	JP 1991-32048	199101 31

PRIORITY APPLN. INFO.: <--

GI

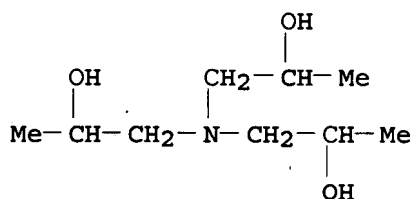


AB The title compns. contain crystalline polyolefins and heat  
**stabilizer-nucleating agents** selected from cyclic  
 fluorophosphites FP(OR1)OR2 (R1R2 = ring-completing group derived  
 from a substituted bisphenol), metal compds., dialkyl esters of  
 dicarboxyalkanesulfonic acid Li, Na, or K salts, and aliphatic amines.  
 A composition contained polypropene 100, I 0.1, K stearate 0.1, and  
 BuCH<sub>2</sub>EtCH<sub>2</sub>O<sub>2</sub>CCH<sub>2</sub>CH(SO<sub>3</sub>Na)CO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>EtBu 0.1 part.

IT 122-20-3, Triisopropanolamine 141-65-1  
 15505-13-2 19045-76-2 19045-77-3  
 RL: **USES (Uses)**  
 (heat **stabilizer-crystal nucleating agent**, for crystalline  
 polyolefins)

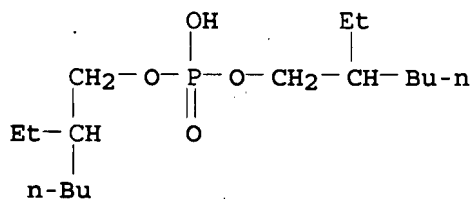
RN 122-20-3 HCAPLUS  
 CN 2-Propanol, 1,1',1''-nitrilotris- (CA INDEX NAME)





RN 141-65-1 HCAPLUS

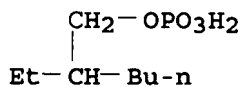
CN Phosphoric acid, bis(2-ethylhexyl) ester, sodium salt (1:1) (CA INDEX NAME)



● Na

RN 15505-13-2 HCAPLUS

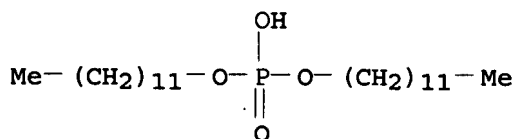
CN Phosphoric acid, mono(2-ethylhexyl) ester, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 19045-76-2 HCAPLUS

CN Phosphoric acid, didodecyl ester, potassium salt (8CI, 9CI) (CA INDEX NAME)



● K

RN 19045-77-3 HCAPLUS

CN Phosphoric acid, monododecyl ester, dipotassium salt (8CI, 9CI) (CA

## INDEX NAME)

H<sub>2</sub>O<sub>3</sub>PO- (CH<sub>2</sub>)<sub>11</sub>-Me

## ● 2 K

- IC ICM C08L023-00  
ICS C08K003-22; C08K003-26; C08K005-39; C08K005-42; C08K005-47;  
C08K005-49; C08K005-52; C08K005-5317
- CC 37-6 (Plastics Manufacture and Processing)
- ST polyolefin crystal nucleation heat **stabilizer**;  
fluorophosphite bisphenol heat **stabilizer** polyolefin;  
sulfosuccinate dialkyl crystal nucleation polyolefin; stearate  
potassium crystal nucleation polyolefin; polypropene crystal  
nucleation heat **stabilizer**
- IT Amines, uses  
Quaternary ammonium compounds, uses  
RL: USES (Uses)  
(heat **stabilizer**-crystal nucleating agents, for crystalline  
polyolefins)
- IT Heat **stabilizers**  
(nucleating agents and, for crystalline polyolefins)
- IT Crystal nucleation  
(agents, heat **stabilizers** and, for crystalline polyolefins)
- IT Sulfonic acids, compounds  
RL: USES (Uses)  
(alkali metal salts, heat **stabilizer**-crystal nucleating  
agents, for crystalline polyolefins)
- IT Amines, uses  
RL: USES (Uses)  
(poly-, heat **stabilizer**-crystal nucleating agents, for  
crystalline polyolefins)
- IT Alkenes, polymers  
RL: USES (Uses)  
(polymers, heat **stabilizer**- and crystal nucleation  
agent-containing, rigid)
- IT 9003-07-0, Polypropylene 9010-79-1, Ethylene-propylene copolymer  
25895-47-0, Butene-1-ethylene-propylene copolymer 106565-43-9,  
Ethylene-propylene block copolymer  
RL: USES (Uses)  
(heat **stabilizer**- and crystal nucleation agent-containing,  
rigid)
- IT 56-37-1, N,N,N-Triethyl-N-benzylammonium chloride 72-17-3, Sodium  
lactate 100-97-0, uses 109-76-2D, 1,3-Propanediamine, tallow  
alkyl derivs. 122-20-3, Triisopropanolamine 124-09-4,  
1,6-Hexanediamine, uses 124-22-1, 1-Dodecanamine 124-28-7,  
N-Stearyl-N,N-dimethylamine 136-29-8 141-65-1  
142-47-2, Mono-sodium glutamate 148-18-5, Sodium  
diethyldithiocarbamate 150-90-3, Sodium succinate 471-34-1,  
Calcium carbonate, uses 512-25-4, Barium citrate 532-32-1,  
Sodium benzoate 546-89-4, Lithium acetate 546-93-0, Magnesium  
carbonate 553-91-3, Lithium oxalate 577-11-7, Sodium  
di(2-ethylhexyl) sulfosuccinate 585-09-1, Potassium malate  
593-29-3, Potassium stearate 868-19-9 1309-42-8, Magnesium  
hydroxide 1309-48-4, Magnesium oxide (MgO), uses 2492-26-4,  
Sodium 2-benzothiazolethiolate 5908-78-1, Barium salicylate

6332-55-4 6976-36-9 12304-65-3, Hydrotalcite 13329-67-4,  
 Sodium 12-hydroxyoctadecanoate 15217-42-2 15505-13-2  
 17264-54-9, Sodium p-toluate 17301-53-0, N-Docosyl-N,N,N-  
 trimethylammonium chloride 18448-65-2 19045-76-2  
 19045-77-3 19147-16-1 19473-49-5, Mono-potassium  
 glutamate 19766-89-3, Sodium 2-ethylhexanoate 20752-56-1  
 21645-51-2, Aluminum hydroxide, uses 24170-14-7 24994-20-5  
 31017-83-1 33976-12-4 39663-84-8, Lithium glycolate  
 40870-38-0D, tallow alkyl derivs. 42596-02-1 51126-65-9  
 51568-80-0 52497-24-2 55695-80-2, Mono-lithium glutamate  
 56418-89-4, Barium 3,5-di-tert-butyl-4-hydroxybenzoate 56624-77-2  
 62122-15-0 65597-20-8, Lithium dihexyl sulfosuccinate  
 66648-22-4, Lithium 2-benzothiazolethiolate 69882-55-9  
 74563-70-5 91993-34-9 94945-28-5 113682-88-5 118337-09-0  
 119735-73-8 119735-74-9 122757-26-0, 2,2'-Methylenebis(4,6-di-  
 tert-butylphenyl) fluorophosphite 124027-29-8 133940-41-7  
 133949-87-8 133949-88-9 133949-89-0 133949-90-3 134016-96-9  
 134883-00-4D, coco alkyl derivs. 134947-42-5 134947-43-6  
 134947-44-7 138511-57-6 141181-27-3 142359-84-0 142539-85-3  
 144722-63-4 144722-67-8 146622-60-8 146623-02-1 146623-03-2  
 146793-89-7 146793-90-0 146793-91-1 146793-92-2 146793-93-3  
 146793-94-4 146793-95-5 146793-96-6 146793-97-7 146793-98-8  
 146793-99-9 146794-00-5 146794-01-6 146794-02-7 146863-78-7  
 146863-79-8

**RL: USES (Uses)**

(heat stabilizer-crystal nucleating agent, for crystalline  
 polyolefins)

L39 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1987:120065 HCAPLUS

DOCUMENT NUMBER: 106:120065

TITLE: Diaryl pentaerythritol diphosphite

INVENTOR(S): Tajima, Kenji; Takahashi, Masayuki; Nishikawa,  
 Kazunori; Takeuchi, Takashi

PATENT ASSIGNEE(S): Adeka Argus Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

**PATENT INFORMATION:**

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61225191	A	19861006	JP 1985-66300	198503 29
JP 05007396	B	19930128		
EP 199997	A2	19861105	EP 1986-104257	198603 27
EP 199997	A3	19880113		
EP 199997	B1	19910529		
R: BE, CH, DE, FR, GB, LI, NL				
US 4739090	A	19880419	US 1986-845903	198603 28

PRIORITY APPLN. INFO.:

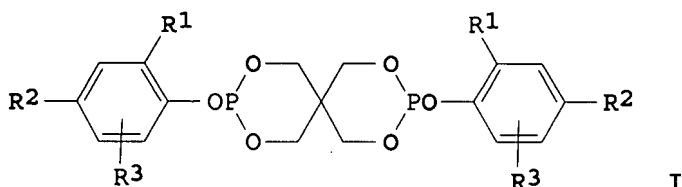
<--  
JP 1985-66300

A

198503  
29OTHER SOURCE(S):  
GI

MARPAT 106:120065

&lt;--



AB Cyclic phosphites I (R1 = C4-8 tertiary alkyl, cyclohexyl; R2, R3 = H, C1-8 alkyl), useful as synthetic resin **stabilizers** (no data), are prepared Thus, 1.0 mol PCl<sub>3</sub> was added to a mixture of 1.1 mol 2,4-(Me<sub>3</sub>C)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>OH, 0.5 mol pentaerythritol, and 0.68 g Et<sub>3</sub>N in xylene at 90° with stirring to give 84.5% I (R1 = R2 = Me<sub>3</sub>C, R3 = H), vs. 51.5% without Et<sub>3</sub>N.

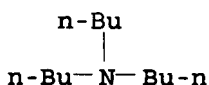
IT 102-82-9 121-44-8, uses and miscellaneous

RL: CAT (Catalyst use); **USES (Uses)**

(catalyst, for reaction of hindered phenols with pentaerythritol and phosphorus trichloride)

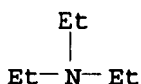
RN 102-82-9 HCAPLUS

CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)



RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



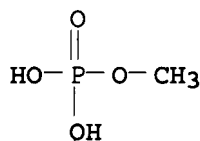
IT 812-00-0, Monomethyl phosphate 813-78-5, Dimethyl phosphate 3921-30-0

RL: CAT (Catalyst use); **USES (Uses)**

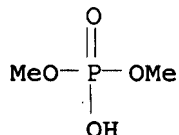
(cocatalyst, for reaction of hindered phenol with pentaerythritol and phosphorus trichloride)

RN 812-00-0 HCAPLUS

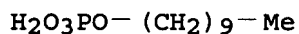
CN Phosphoric acid, monomethyl ester (CA INDEX NAME)



RN 813-78-5 HCAPLUS  
 CN Phosphoric acid, dimethyl ester (CA INDEX NAME)



RN 3921-30-0 HCAPLUS  
 CN Phosphoric acid, monodecyl ester (CA INDEX NAME)



IC ICM C07F009-145  
 ICA B01J031-02  
 CC 29-7 (Organometallic and Organometalloidal Compounds)  
 Section cross-reference(s): 37  
 ST diaryl pentaerythritol diphosphite resin **stabilizer**  
 IT Plastics  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (**stabilizers** for, diaryl pentaerythritol diphosphites)  
 IT 68-12-2, uses and miscellaneous 102-82-9 121-44-8  
 , uses and miscellaneous 1643-19-2, Tetrabutylammonium bromide  
 2782-91-4, Tetramethylthiourea 4519-28-2, Tetramethylphosphonium  
 bromide  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalyst, for reaction of hindered phenols with pentaerythritol  
 and phosphorus trichloride)  
 IT 812-00-0, Monomethyl phosphate 813-78-5, Dimethyl  
 phosphate 838-85-7, Diphenyl phosphate 1571-33-1,  
 Phenylphosphonic acid 3658-48-8, Bis(2-Ethylhexyl)phosphonic acid  
 3921-30-0 6881-57-8  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (cocatalyst, for reaction of hindered phenol with pentaerythritol  
 and phosphorus trichloride)  
 IT 26741-53-7P 70653-90-6P 70653-91-7P 70653-95-1P 70653-98-4P  
 106749-99-9P 106936-82-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as synthetic resin **stabilizer**)

L39 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1987:24873 HCAPLUS

DOCUMENT NUMBER: 106:24873

TITLE: Improving the stability of solidified  
 radioactive ion-exchange resin particles

INVENTOR(S): Laske, Dietrich; Doebring, Lothar

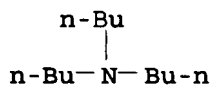
PATENT ASSIGNEE(S): Gesellschaft zur Foerderung der

Industrieorientierten Forschung an den  
Schweizerischen Hochschulen und Weiteren  
Institutionen, Switz.  
SOURCE: Eur. Pat. Appl., 24 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

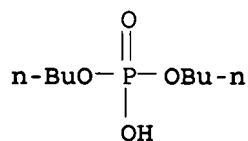
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 182172	A1	19860528	EP 1985-113953	198511 02
EP 182172	B1	19900816		
R: BE, DE, FR, GB, SE				
CH 664843	A5	19880331	CH 1984-5407	198411 12
US 4732705	A	19880322	US 1985-796747	198511 12
PRIORITY APPLN. INFO.:			CH 1984-5407	A 198411 12

AB The stability of radioactive ion-exchange resin particles embedded in an organic and/or inorg. binder which is then allowed to harden is increased by treating the ion-exchange resin, before or during the solidification process, with  $\geq 1$  additive or heat to decrease the swelling factor below 1.7. Thus, Lewatit S 100, having a swelling factor of 2.1, was treated with dibutylamine to produce a swelling factor of 1.14. When the treated resin was solidified with cement, the product contained 35.1 kg dry substance in 100 L matrix, compared with 22 kg/100 L with untreated resin, and was water-resistant even after drying.

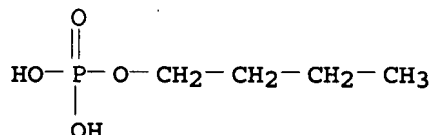
IT 102-82-9 107-66-4 1623-15-0  
RL: PEP (Physical, engineering or chemical process); PROC (Process);  
USES (Uses)  
(radioactive ion-exchanger treatment by, before or during solidification)  
RN 102-82-9 HCAPLUS  
CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)



RN 107-66-4 HCAPLUS  
CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



RN 1623-15-0 HCAPLUS  
 CN Phosphoric acid, monobutyl ester (CA INDEX NAME)



IC ICM G21F009-16  
 CC 71-11 (Nuclear Technology)  
 IT Cement  
 (radioactive ion-exchanger solidification with,  
 stabilization in)  
 IT 64-19-7D, cocoalkylamine salts 77-98-5 78-90-0 78-90-0D,  
 polysulfide derivs. 79-10-7, Acrylic acid, uses and miscellaneous  
 79-17-4D, polysulfide derivs. 80-62-6 80-70-6D, polysulfide  
 derivs. 100-85-6 102-82-9 106-50-3, uses and  
 miscellaneous 107-15-3, uses and miscellaneous 107-15-3D,  
 polysulfide derivs. 107-66-4 110-85-0, properties  
 110-85-0D, polysulfide derivs. 111-92-2, Dibutylamine 113-00-8D,  
 polysulfide derivs. 123-46-6 140-89-6 302-01-2, properties  
 461-58-5D, polysulfide derivs. 557-34-6, Zinc acetate 563-41-7  
 621-85-2 1002-89-7, Ammonium stearate 1344-13-4 1344-81-6  
 1420-40-2 1623-15-0 2035-71-4 2052-49-5 2200-97-7  
 2235-54-3 2958-09-0 2986-19-8 4499-86-9 5282-80-4  
 5538-94-3 6891-44-7 7173-51-5 7446-70-0, Aluminum chloride,  
 uses and miscellaneous 7705-07-9, Titanium trichloride, uses and  
 miscellaneous 7705-08-0, Ferric chloride, uses and miscellaneous  
 7720-78-7, Ferrous sulfate 14518-69-5 17287-03-5 19402-63-2  
 23542-35-0 27103-90-8 29383-23-1, Vinyl imidazole 32680-30-1  
 33850-87-2, Tributylamine nitrate 37199-66-9 39345-92-1  
 39464-64-7 50864-67-0 51811-79-1 67559-83-5, Dibutylamine  
 nitrate 69771-54-6 82098-48-4 100224-74-6 105849-28-3  
 105849-29-4 105850-84-8 105850-85-9 105850-86-0  
 RL: PEP (Physical, engineering or chemical process); PROC (Process);  
 USES (Uses)  
 (radioactive ion-exchanger treatment by, before or during  
 solidification)

L39 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1985:407943 HCAPLUS

DOCUMENT NUMBER: 103:7943

TITLE: Pressed materials such as chipboards with  
 polyisocyanate binders using latent  
 heat-activatable catalysts

INVENTOR(S): Kerimis, Dimitrios; Mueller, Peter; Kapps,  
 Manfred

PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.

SOURCE: Ger. Offen., 46 pp.

DOCUMENT TYPE: CODEN: GWXXBX  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: German  
 1  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
DE 3328662	A1	19850221	DE 1983-3328662	198308 09
US 4608407	A	19860826	US 1984-632341	198407 19
NO 8403018	A	19850211	NO 1984-3018	198407 25
NO 158751	B	19880718		
NO 158751	C	19881026		
CA 1225808	A1	19870825	CA 1984-459642	198407 25
EP 133680	A1	19850306	EP 1984-108992	198407 30
EP 133680	B1	19880427		
R: AT, BE, CH, DE, FR, GB, LI, SE				
AT 33848	T	19880515	AT 1984-108992	198407 30
FI 8403101	A	19850210	FI 1984-3101	198408 07
FI 78723	B	19890531		
FI 78723	C	19890911		
DK 8403821	A	19850210	DK 1984-3821	198408 08
DK 159721	B	19901126		
DK 159721	C	19910422		
JP 60055016	A	19850329	JP 1984-165783	198408 09
JP 03039530	B	19910614		
PRIORITY APPLN. INFO.:			DE 1983-3328662	A 198308 09
			EP 1984-108992	A 198407



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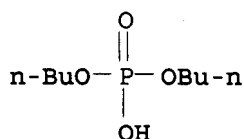
&lt;--

AB Ammonium salts prepared from amines and esters of P-containing acids are used as latent, heat-activated catalysts for the curing of polyisocyanate binders in lignocellulosic materials. Thus, 101 parts Et<sub>3</sub>N [121-44-8] and 248 parts MeP(O)(OMe)<sub>2</sub> [756-79-6] were refluxed 8 h and then distilled in vacuo to remove unreacted phosphonate ester, giving 140 parts MeP(O)(OMe)ONEt<sub>3</sub>Me (I) [96203-11-1]. Wood chips (2250 parts) were mixed with 130 parts polymethylenepolyphenylene isocyanate (II) [9016-87-9] containing 0.5% I. This mixture, **stable** for at least 1-2 h at room temperature, was used as the center layer in a 3-layer composite prepared from wood chips containing II. The composite was cured 1.6 min in a mold at 170°. The cured composite had transverse tensile strength 0.25 MPa, compared with 0.20 for a composite cured similarly but without I.

IT 107-66-4  
 RL: **USES (Uses)**  
 (salt formation from amines and)

RN 107-66-4 HCAPLUS

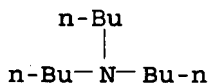
CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



IT 102-82-9 121-44-8, reactions  
 RL: **USES (Uses)**  
 (salt formation from di-Me methanephosphonate and)

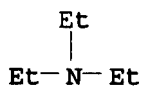
RN 102-82-9 HCAPLUS

CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)



RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IC ICM B29J005-00  
 ICS C08G018-18; C08L097-02

CC 43-9 (Cellulose, Lignin, Paper, and Other Wood Products)  
 Section cross-reference(s): 37

IT 78-40-0 107-66-4 756-79-6  
 RL: **USES (Uses)**  
 (salt formation from amines and)

IT 102-82-9 109-02-4 111-92-2 120-94-5 121-44-8  
 , reactions 280-57-9 3001-72-7 6674-22-2

RL: **USES (Uses)**

(salt formation from di-Me methanephosphonate and)

L39 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1984:492144 HCAPLUS

DOCUMENT NUMBER: 101:92144

TITLE: **Stabilizers** for halogen-containing resins

PATENT ASSIGNEE(S): Katsuta Kako Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59038250	A	19840302	JP 1982-148645	19820827
JP 03048222	B	19910723	JP 1982-148645	19820827

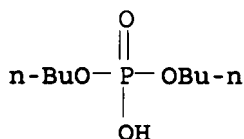
AB Liquid **stabilizers** contain Zn and alkaline earth metal salts of C6-18 organic acids, organic H<sub>3</sub>PO<sub>3</sub> esters, H<sub>3</sub>PO<sub>3</sub> or H<sub>3</sub>PO<sub>4</sub> compds. contg ≥1 P-OH linkage, organotin compds., N-containing compds., and solvents. Thus, a liquid **stabilizer** was prepared from calcium octoate [6107-56-8] 10, zinc octoate [557-09-5] 10, dibutyltin dilaurate [77-58-7] 2, triisopropanolamine [122-20-3] 0.5, dioctyl phthalate (I) [117-81-7] 11.5, oleyl alc. [143-28-2] Et diglycol [111-90-0] 3, PCOC<sub>2</sub>H<sub>4</sub>OEt) (OC<sub>2</sub>H<sub>4</sub>OC<sub>2</sub>H<sub>4</sub>OEt) (OC<sub>2</sub>H<sub>4</sub>OC<sub>2</sub>H<sub>4</sub>OBu) (II) [91433-53-3] 30, and (C<sub>10</sub>H<sub>21</sub>O)<sub>2</sub>POH (III) [19931-58-9] 30 parts. Sheets were prepared from PVC [9002-86-2] 100, I 50, an epoxidized soybean oil 2.0, barium stearate [6865-35-6] 0.4 zinc stearate [557-05-1] 0.6, and the liquid **stabilizer** 1.5 parts and had heat stability 65 min at 180°, good transparency, slight discoloration, weather resistance 1300 h, and slight blooming, compared with 60, slight turbidity, discoloration, 850, and bleeding, resp., for sheets using a liquid **stabilizers** containing 60 parts II and no III.

IT 107-66-4 122-20-3

RL: **USES (Uses)**(liquid **stabilizer** compns., for PVC)

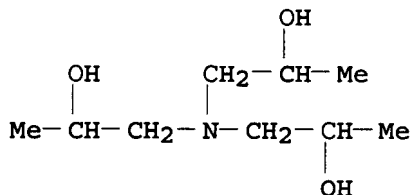
RN 107-66-4 HCAPLUS

CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



RN 122-20-3 HCAPLUS

CN 2-Propanol, 1,1',1''-nitrilotris- (CA INDEX NAME)



- IC C08L027-00; C08K005-09; C08K005-17; C08K005-51; C08K005-57  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST PVC heat **stabilizer**; phosphite heat **stabilizer**  
 PVC; tin heat **stabilizer** PVC; amine heat  
**stabilizer** PVC; zinc heat **stabilizer** PVC  
 IT Plasticizers  
 (dioctyl phthalate, solvents, for liquid **stabilizer**  
 compns., for PVC)  
 IT Heat **stabilizers**  
 Light **stabilizers**  
 (organic acid salts, containing phosphorus compds. and tin compds. and  
 nitrogen compds. and solvents, for PVC)  
 IT Solvents  
 (organic, for liquid **stabilizer** compns., for PVC)  
 IT Alcohols, uses and miscellaneous  
 RL: USES (Uses)  
 (solvents, for liquid **stabilizer** compns., for PVC)  
 IT Amines, uses and miscellaneous  
 RL: USES (Uses)  
 (di-, liquid **stabilizer** compns., for PVC)  
 IT 77-58-7 100-37-8 102-71-6, uses and miscellaneous 107-15-3,  
 uses and miscellaneous 107-66-4 122-20-3  
 122-39-4, uses and miscellaneous 557-09-5 2718-67-4 4486-47-9  
 4712-55-4 6107-56-8 6172-74-3 19931-58-9 22205-30-7  
 25168-24-5 26761-46-6 32429-22-4 42800-31-7 82349-74-4  
 91422-01-4 91433-47-5 91433-48-6 91433-51-1 91433-52-2  
 91433-54-4  
 RL: USES (Uses)  
 (liquid **stabilizer** compns., for PVC)  
 IT 9002-86-2  
 RL: USES (Uses)  
 (liquid **stabilizers** for, containing organic acid salts,  
 phosphorus compds. and tin compds. in nitrogen compds. and  
 solvents)  
 IT 103-23-1 104-76-7 111-76-2 111-90-0 117-81-7 143-28-2  
 RL: USES (Uses)  
 (solvents, for liquid **stabilizer** compns. for PVC)  
 IT 557-05-1 1330-78-5 6865-35-6  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (**stabilizers**, for PVC)

L39 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1977:148848 HCAPLUS

DOCUMENT NUMBER: 86:148848

TITLE: Free radical photosensitive materials

INVENTOR(S): Wainer, Eugene; Shirey, John E.; Ramins, Lothar

PATENT ASSIGNEE(S): Horizons Inc., Division of Horizons Research  
 Inc., USA

SOURCE: U.S., 6 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3986880	A	19761019	US 1974-500117	197408 23

PRIORITY APPLN. INFO.: US 1974-500117 A  
 197408  
 23

AB The shelf life of a free-radical photog. composition containing arylamines and an organic halogen compound is improved by including an alc. or a phenol derivative, a trialkyl or triaryl phosphate and triphenylcarbinol. Thus, a solution prepared from triphenylamine 26, triphenylstibine 16, triethylamine 64, 1,1-bis(p-dimethylaminophenyl)ethylene 80, CHI<sub>3</sub> 360, 4-aminopyrene 12, acetanilide 12, 4-phenylpyridine N-oxide 24, N-vinylcarbazole 2, 3,6-diisopropylcatechol (I) 5, triphenyl phosphate (II) 10, triphenylcarbinol (III) 75 mg, a polystyrene solution (27 g in PhMe 100 mL) 4, a poly(phenylene oxide) solution (18 g in CCl<sub>2</sub>CHCl 100 mL) 1 and 1,2-dichloroethane 2 mL was coated on a poly(ethylene terephthalate) support as a 0.003 in. layer, dried, exposed to a high-pressure Hg lamp and fixed by heating at 160° for 2 min to give an image with a speed of 98 mJ (for a net d. (D<sub>max</sub>-D<sub>min</sub>) of 1.0), a fog of 0.04 and a γ of 2.3 for a fresh film and 87 mJ, 0.05 and 2.0, resp., for a film stored for weeks vs. 165 mJ, 0.04 and 1.6 and 220 mJ, 0.2 and 1.0, resp., for a control using 2,6-di-tert-butylcresol in the place of I, II and III.

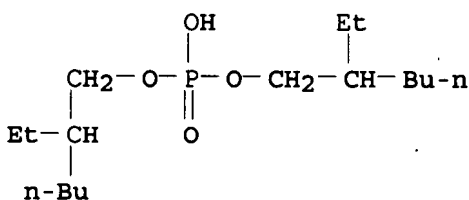
IT 298-07-7

RL: USES (Uses)

(photosensitive compns. containing aryl amines, organic halogen compound, phenol derivative, triphenylcarbinol and, for photog. image production)

RN 298-07-7 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



IT 121-44-8, uses and miscellaneous

RL: USES (Uses)

(photosensitive compns. containing organic halogen compound, triaryl phosphate, phenol derivative, triphenylcarbinol and, for photog. image production)

RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

Et

Et-N-Et

IC G03C001-52  
 INCL 096090000R  
 CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 ST free radical photog compn; aryl phosphate photog compn; alc **stabilizer** photog compn; phenol **stabilizer** photog compn; phenylcarbinol photog compn  
 IT 70-55-3 78-51-3 84-74-2 112-62-9 115-86-6 117-81-7  
 126-72-7 298-07-7 7260-11-9  
 RL: **USES (Uses)**  
 (photosensitive compns. containing aryl amines, organic halogen compound, phenol derivative, triphenylcarbinol and, for photog. image production)  
 IT 83-07-8 103-84-4 121-44-8, uses and miscellaneous  
 603-34-9 603-36-1 1131-61-9 1484-13-5 7478-69-5 13080-52-9  
 51279-53-9 62555-79-7  
 RL: **USES (Uses)**  
 (photosensitive compns. containing organic halogen compound, triaryl phosphate, phenol derivative, triphenylcarbinol and, for photog. image production)

=&gt; d 140 ibib abs hitstr hitind 1-31

L40 ANSWER 1 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:159892 HCAPLUS  
 DOCUMENT NUMBER: 142:199123  
 TITLE: Internal releasing agent for plastics  
 INVENTOR(S): Ittmann, Guenther  
 PATENT ASSIGNEE(S): Roehm GmbH & Co. KG, Germany  
 SOURCE: Ger. Offen., 6 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10335577	A1	20050224	DE 2003-10335577	20030731
WO 2005021228	A1	20050310	WO 2004-EP3868	20040413

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,

VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,  
 DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
 ML, MR, NE, SN, TD, TG

EP 1648672 A1 20060426 EP 2004-726975 200404  
 13

&lt;--

EP 1648672 B1 20070207  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
 PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK  
 CN 1812874 A 20060802 CN 2004-80018263 200404  
 13

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JP 2007500613 T 20070118 JP 2006-521399 200404  
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AT 353276 T 20070215 AT 2004-726975 200404  
 13

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US 2006237872 A1 20061026 US 2006-566000 200601  
 27

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PRIORITY APPLN. INFO.: DE 2003-10335577 A 200307  
 31

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WO 2004-EP3868 W 200404  
 13

OTHER SOURCE(S): MARPAT 142:199123

AB A suitable releasing agent for polymers, especially PMMA, is a mono- or dialkylated phosphoric acid ammonium salt  $Rn1PO3-(HN+-R32)m$  ( $R1 = Me$  to n-dodecyl, also iso-Pr, iso-butyl;  $R2 = Me, Et, (iso-)propyl, butyl$ ;  $n = 1$  or  $2$ ;  $m = 2$  or  $1$ ), which is added in concns. 0.01-5.0 weight% referred to the polymerizable monomer (mixture). Thus, 99.87 weight% MMA-PMMA was polymerized with 0.08 weight% AIBN and 0.05 weight% di-Me phosphoric acid triethylamine in a closed silicate glass chamber sealed with PVC in a water bath for 17 h at 45°, followed by subsequent polymerization for 3 h at 115°. The acrylate glass could be easily separated from the silicate glasses.

IT 121-44-8D, Triethylamine, reaction products with Zelec UN  
 RL: MOA (Modifier or additive use); RCT (Reactant); RACT  
 (Reactant or reagent); USES (Uses)  
 (internal releasing agent; internal releasing agent for plastics)

RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

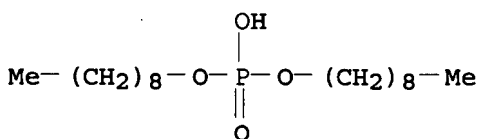
Et

Et-N-Et

IT 36047-43-5D, Monononylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with dinonyl phosphate, Zelec UN; internal releasing agent for plastics)  
 RN 36047-43-5 HCAPLUS  
 CN Phosphoric acid, monononyl ester (9CI) (CA INDEX NAME)

Me- (CH<sub>2</sub>)<sub>8</sub>-OPO<sub>3</sub>H<sub>2</sub>

IT 3138-43-0D, Dinonylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with monononyl phosphate, Zelec UN; internal releasing agent for plastics)  
 RN 3138-43-0 HCAPLUS  
 CN Phosphoric acid, dinonyl ester (8CI, 9CI) (CA INDEX NAME)



IC ICM B29C033-60  
 ICS C08K005-521; C08J005-10; C08L033-08  
 CC 37-6 (Plastics Manufacture and Processing)  
 IT 121-44-8D, Triethylamine, reaction products with Zelec UN  
 RL: MOA (Modifier or additive use); RCT (Reactant); RACT  
 (Reactant or reagent); USES (Uses)  
 (internal releasing agent; internal releasing agent for plastics)  
 IT 36047-43-5D, Monononylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with dinonyl phosphate, Zelec UN; internal releasing agent for plastics)  
 IT 3138-43-0D, Dinonylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with monononyl phosphate, Zelec UN; internal releasing agent for plastics)

L40 ANSWER 2 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:796223 HCAPLUS  
 DOCUMENT NUMBER: 137:359333  
 TITLE: Deactivation in Sub- and Supercritical Carbon Dioxide  
 AUTHOR(S): Murzin, A. A.; Babain, V. A.; Shadrin, A. Yu.; Kamachev, V. A.; Romanovskii, V. N.; Starchenko, V. A.; Podoinitsyn, S. V.; Revenko, Yu. A.; Logunov, M. V.; Smart, N. G.  
 CORPORATE SOURCE: Khlopin Radium Institute, Research and Production Association, St. Petersburg, Russia  
 SOURCE: Radiochemistry (Moscow, Russian Federation) (Translation of Radiokhimiya) (

2002), 44(4), 410-415

CODEN: RDIOEO; ISSN: 1066-3622

PUBLISHER: MAIK Nauka/Interperiodica Publishing

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Solns. of hexafluoroacetylacetone and a modifier such as, e.g., pyridine in supercrit. CO<sub>2</sub> allow 97-99% removal of actinides from the stainless steel surface. The deactivation efficiencies were compared for liquid and supercrit. CO<sub>2</sub>. Single treatment run with solns. of HDEHP and DCH18C6 in liquid CO<sub>2</sub> removes 70-80% of transuranium elements and over 50% of Sr and Cs from the stainless steel surface. Deactivation of real contaminated radioactive samples was studied. Methods such as supercrit. fluid extraction and extraction with liquid CO<sub>2</sub> are suitable for deactivation of surfaces and porous materials.

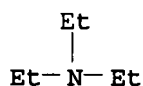
IT 121-44-8, Triethylamine, uses

RL: MOA (Modifier or additive use); USES (Uses)

(radioactive decontamination with sub- and supercrit. carbon dioxide)

RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



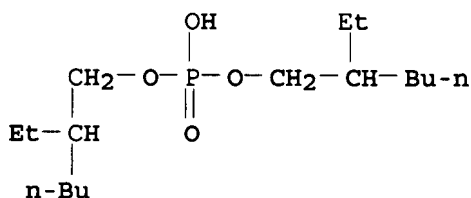
IT 298-07-7, HDEHP

RL: NUU (Other use, unclassified); USES (Uses)

(radioactive decontamination with sub- and supercrit. carbon dioxide)

RN 298-07-7 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



CC 71-10 (Nuclear Technology)

IT 68-12-2, Dimethyl formamide, uses 93-60-7, Methyl

3-pyridinecarboxylate 108-48-5, 2,6-Dimethylpyridine 109-06-8,

2-Methylpyridine 110-86-1, Pyridine, uses 121-44-8,

Triethylamine, uses 121-69-7, Dimethylaniline, uses 2459-07-6,

Methyl 2-pyridinecarboxylate 4096-20-2, N-Phenylpiperidine

6574-15-8, N-(4-Nitrophenyl)piperidine

RL: MOA (Modifier or additive use); USES (Uses)

(radioactive decontamination with sub- and supercrit. carbon dioxide)

IT 124-38-9, Carbon dioxide, uses 298-07-7, HDEHP

1522-22-1, Hexafluoroacetylacetone 16069-36-6

RL: NUU (Other use, unclassified); USES (Uses)

(radioactive decontamination with sub- and supercrit. carbon dioxide)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L40 ANSWER 3 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2001:737016 HCAPLUS  
DOCUMENT NUMBER: 135:290256  
TITLE: Acrylic polysiloxane compositions, their aqueous  
glossy coatings and compounding method therefor  
INVENTOR(S): Kono, Yoshiyuki; Hatano, Takanori  
PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001279160	A	20011010	JP 2000-95027	200003 30

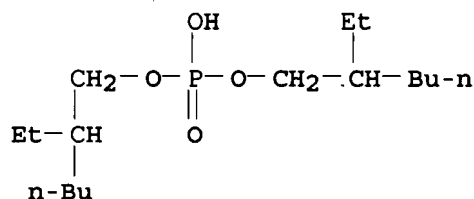
PRIORITY APPLN. INFO.: JP 2000-95027  
200003  
30

OTHER SOURCE(S): MARPAT 135:290256  
AB Title compns. comprise (a) emulsions of polymers containing silyl groups  
R1aSiX13-a [R1 = C1-10 alkyl, C6-10 aryl, C7-10 aralkyl; X1 =  
halogen, (thio)alkoxy, OH, NH2, acyloxy, aminoxy, phenoxy; a = 0-2],  
(b) (R2O)4-bSiR3b (R2 = C1-10 alkyl, C6-10 aryl, C7-10 aralkyl, C1-4  
acyl; R3 = C1-10 alkyl, C6-10 aryl, C7-10 aralkyl; b = 0-2)  
silicones and/or their partially hydrolyzates, and (c) acidic organic  
compds. and basic compds. at acid/base equiv ratio (A/B) of  
1:0.01-3. Mixing a Bu acrylate-Bu methacrylate-iso-Bu  
methacrylate-Me methacrylate-triethoxysilylpropyl  
methacrylate-poly(ethylene glycol) monomethacrylate-Aqualon RN  
30-Aqualon HS 0515 copolymer-containing emulsion with ESi 48, adding a  
pigments paste and additives, and further stirring with an aqueous mixture  
of DP 8R and DBU at A/B of 1:1.0 to form a coating showing good  
gloss, water-contact angle 47° initially and 45° after  
3 mo at outdoor, low brightness deviation after 3 mo at outdoor, and  
good water and weather resistance.  
IT 121-44-8, Triethylamine, uses 298-07-7, DP 8R  
RL: MOA (Modifier or additive use); USES (Uses)  
(acrylic polysiloxane compns. for glossy, hydrophilic, and  
antisoiling aqueous coatings and compounding method)  
RN 121-44-8 HCAPLUS  
CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

Et  
|  
Et-N-Et

RN 298-07-7 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



IC ICM C09D143-04

ICS C09D005-02; C09D183-02; C09D183-06

CC 42-10 (Coatings, Inks, and Related Products)

IT 57-11-4, Stearic acid, uses 121-44-8, Triethylamine, uses 298-07-7, DP 8R 1336-21-6, Ammonia water 6674-22-2, DBU

RL: MOA (Modifier or additive use); USES (Uses)

(acrylic polysiloxane compns. for glossy, hydrophilic, and antisoiling aqueous coatings and compounding method)

L40 ANSWER 4 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:551932 HCAPLUS

DOCUMENT NUMBER: 135:138786

TITLE: Aqueous antisoiling coating compositions and compounding method therefor

INVENTOR(S): Kono, Yoshiyuki; Hatano, Takanori; Kusakabe, Masato

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001207117	A	20010731	JP 2000-16345	20000125

PRIORITY APPLN. INFO.: JP 2000-16345

20000125

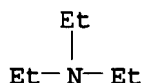
AB Title compns., with high gloss, contain (a) aqueous resin dispersions, (b) Si compds. (R1O)4-aSi(OR2)a (R1, R2 = C1-10 alkyl, C6-10 aryl, C7-10 aralkyl; a = 0-2) and/or their hydrolyzates, and (c) blends of organic acids and basic compds. at acid/base equivalent ratio (R) of 1/0.01. Adding a blend of aqueous NH3 and DP 8R at R of 1/0.3 into an aqueous composition containing Bu acrylate-Bu methacrylate-iso-Bu methacrylate-Me methacrylate-MA 100 copolymer and ESi 48 gave a coating, which was spread on a glass plate and aged at room temperature for 2 wk to form a film with water-contact angle 49° initially, 43° after soaking in water for 2 wk, and 49° after 3 mo at outdoor, brightness deviation 1.7 at 45° surface, and 60° gloss 82.0%.

IT 121-44-8, Triethylamine, uses 298-07-7, DP 8R

RL: MOA (Modifier or additive use); USES (Uses)  
(aqueous acrylic coatings containing organic silicates and organic acid/base blends with hydrophilicity and gloss and soil resistance)

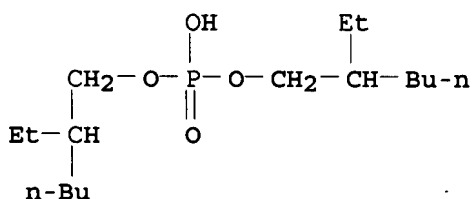
RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



RN 298-07-7 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



IC ICM C09D183-02

ICS C09D005-00; C09D133-06; C09D183-04

CC 42-10 (Coatings, Inks, and Related Products)

IT 57-11-4, Stearic acid, uses 78-10-4, Tetraethoxysilane

121-44-8, Triethylamine, uses 298-07-7, DP 8R

1336-21-6, Ammonia water 11099-06-2

RL: MOA (Modifier or additive use); USES (Uses)

(aqueous acrylic coatings containing organic silicates and organic acid/base blends with hydrophilicity and gloss and soil resistance)

L40 ANSWER 5 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:517730 HCAPLUS

DOCUMENT NUMBER: 135:108668

TITLE: Water-thinned polymer coating compositions,  
their manufacture, and brightening agents

INVENTOR(S): Kono, Yoshiyuki; Hatano, Takanori; Kusakabe,  
Masato

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001192620	A	20010717	JP 2000-335742	20001102

PRIORITY APPLN. INFO.:

JP 1999-316052

A

19991105

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OTHER SOURCE(S): MARPAT 135:108668

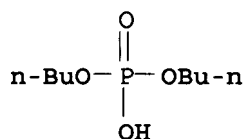
AB The compns. contain water-thinned polymer dispersions and brightening agents comprising acidic organic compds. and basic compds. at acid/base equivalent ratio 1/0.01-3. Thus, a composition containing 100 parts mixture of Odeflash Si-II (silicone-modified acrylic polymer coating) and an aqueous emulsion containing Bu acrylate-Me methacrylate-Bu methacrylate-iso-Bu methacrylate-triethoxysilylpropyl methacrylate-MA 100 (polyoxyethylene-containing vinyl monomer) copolymer and 5 parts brightening agent manufactured from di-Bu phosphate and 1,8-diazabicyclo[5.4.0]undec-7-ene was applied on a glass plate and dried to give a coating showing 20° gloss 62.8.

IT 107-66-4, Dibutyl phosphate 121-44-8, Triethylamine, uses 298-07-7, Di(2-ethylhexyl) phosphate 1070-03-7, Mono(2-ethylhexyl) phosphate

RL: MOA (Modifier or additive use); USES (Uses)  
(brightening agents; manufacture of water-thinned polymer coating compns.)

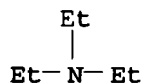
RN 107-66-4 HCAPLUS

CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



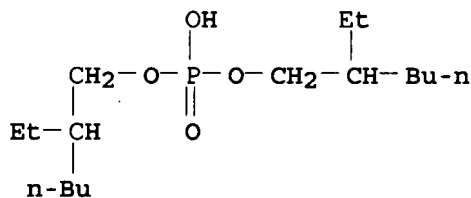
RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



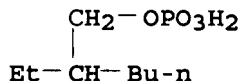
RN 298-07-7 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



RN 1070-03-7 HCAPLUS

CN Phosphoric acid, mono(2-ethylhexyl) ester (CA INDEX NAME)



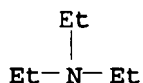
IC ICM C09D201-00  
 ICS C09D005-00; C09D007-12  
 CC 42-7 (Coatings, Inks, and Related Products)  
 IT 57-11-4, Stearic acid, uses 107-66-4, Dibutyl phosphate  
 121-44-8, Triethylamine, uses 151-41-7, Lauryl sulfate  
 298-07-7, Di(2-ethylhexyl) phosphate 1070-03-7,  
 Mono(2-ethylhexyl) phosphate 6674-22-2, 1,8-Diazabicyclo-[5,4,0]-7-  
 undecene 7664-41-7, Ammonia, uses 56572-86-2, Isodecyl phosphate  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (brightening agents; manufacture of water-thinned polymer coating  
 compns.)

L40 ANSWER 6 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1996:294922 HCAPLUS  
 DOCUMENT NUMBER: 124:346157  
 TITLE: Water-based coating compositions  
 INVENTOR(S): Matsuide, Yasuhiro; Koshizawa, Shuichi;  
 Iwahashi, Masanori; Sato, Taiji; Oohara,  
 Shinichi  
 PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

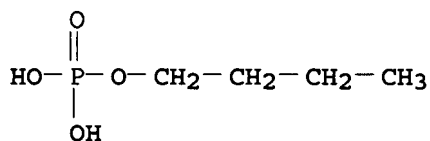
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08034954	A	19960206	JP 1994-172435	199407 25
JP 3635682	B2	20050406	JP 1994-172435	199407 25

PRIORITY APPLN. INFO.: <--

AB Title compns. with good water resistance, hardness, storability  
 contain aqueous acrylic resins prepared from  $\alpha,\beta$ -unsatd.  
 carboxylic acids, aromatic vinyl monomers, and (meth)acrylamide-type  
 monomers, phosphoric acid compds., and pigments. Thus, acrylic  
 resin prepared from methacrylic acid 6.0, styrene 15.0,  
 N-methoxymethylacrylamide 15.0, 2-hydroxyethyl methacrylate 5.0, and  
 Et acrylate 59.0 parts 124.5, monobutyl phosphate 0.6, and CR 93 100  
 parts were mixed and kneaded to give a test piece showing good  
 storability, water resistance, and hardness 4H.  
 IT 121-44-8DP, Triethylamine, reaction products with modified  
 phosphoric acids  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive  
 use); PREP (Preparation); USES (Uses)  
 (water-based coatings containing acrylic resins, phosphoric acid  
 compds., and pigments)  
 RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IT 1623-15-0, Monobutyl phosphate  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (water-based coatings containing acrylic resins, phosphoric acid  
 compds., and pigments)  
 RN 1623-15-0 HCAPLUS  
 CN Phosphoric acid, monobutyl ester (CA INDEX NAME)



IC ICM C09D133-02  
 ICS C09D125-08; C09D133-26  
 CC 42-7 (Coatings, Inks, and Related Products)  
 IT 121-44-8DP, Triethylamine, reaction products with modified  
 phosphoric acids  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive  
 use); PREP (Preparation); USES (Uses)  
 (water-based coatings containing acrylic resins, phosphoric acid  
 compds., and pigments)  
 IT 1623-15-0, Monobutyl phosphate  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (water-based coatings containing acrylic resins, phosphoric acid  
 compds., and pigments)

L40 ANSWER 7 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1996:167703 HCAPLUS  
 DOCUMENT NUMBER: 124:204000  
 TITLE: Transparent, rigid, heat-resistant, and  
 resilient crystalline polyolefin compositions  
 INVENTOR(S): Nakajima, Yoichi  
 PATENT ASSIGNEE(S): Chisso Corp, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07330963	A	19951219	JP 1994-175946	199407 04
JP 3805388	B2	20060802	JP 1994-95876	199404 08

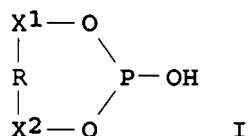
PRIORITY APPLN. INFO.: <--

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JP 1994-95877 A 199404  
08

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JP 1994-99332 A 199404  
12

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OTHER SOURCE(S): MARPAT 124:204000  
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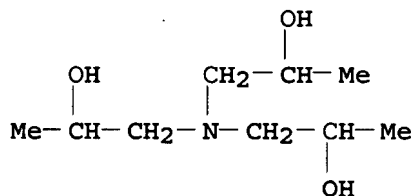


AB The title compns. comprise Mg halide catalyst residue-containing crystalline polyolefins (e.g., polypropylene, ethylene-propylene copolymer), 0.001-1 phr cyclic P compds. I [R = C1-4 alkylidene; X1-2 = (cyclo)alkylarylene, ar(alk)ylarylene], and 0.001-1 phr halogen adsorbers (e.g., aliphatic acid salts, alkanoyl lactic salts, aliphatic hydroxyacid salts, etc.).

IT 122-20-3, Triisopropanolamine  
RL: MOA (Modifier or additive use); USES (Uses)  
(halogen adsorbers; transparent, rigid, heat-resistant, and resilient crystalline polyolefin compns.)

RN 122-20-3 HCAPLUS

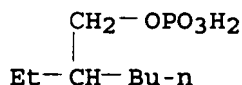
CN 2-Propanol, 1,1',1''-nitrilotris- (CA INDEX NAME)



IT 116338-80-8  
RL: MOA (Modifier or additive use); USES (Uses)  
(transparent, rigid, heat-resistant, and resilient crystalline polyolefin compns.)

RN 116338-80-8 HCAPLUS

CN Phosphoric acid, mono(2-ethylhexyl) ester, magnesium salt (1:1)  
(9CI) (CA INDEX NAME)



## ● Mg

- IC ICM C08L023-00  
ICS C08K005-00; C08K005-527
- CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 28
- IT 68-04-2, Sodium citrate 100-97-0, Hexamethylenetetramine, uses 108-78-1, 2,4,6-Triamino-1,3,5-triazine, uses 110-30-5, N,N'-Ethylenebisstearamide 112-84-5, Erucamide 122-20-3, Triisopropanolamine 301-02-0, Oleamide 471-34-1, Calcium carbonate, uses 546-89-4, Lithium acetate 551-64-4, Zinc tartrate 814-80-2, Calcium lactate 1309-42-8, Magnesium hydroxide 1314-13-2, Zinc oxide, uses 1592-23-0, Calcium stearate 4508-49-0 4615-31-0, Zinc stearyl phosphate 11097-59-9, DHT-4A 39663-84-8, Lithium glycolate 51568-80-0, Calcium stearyl phosphate 52497-24-2 52829-07-9, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 57532-25-9, Magnesium 12-hydroxyoctadecanoate 71878-19-8 85209-91-2, Sodium 2,2'-methylenebis(4,6-di-tert-butylphenyl) phosphate 90751-07-8 94945-28-5 106990-43-6 121236-27-9, Zinc montanate 173050-47-0
- RL: MOA (Modifier or additive use); USES (Uses)  
(halogen adsorbers; transparent, rigid, heat-resistant, and resilient crystalline polyolefin compns.)
- IT 72-17-3, Sodium lactate 127-09-3, Sodium acetate 142-72-3, Magnesium acetate 546-93-0, Magnesium carbonate 557-04-0, Magnesium stearate 822-16-2, Sodium stearate 868-18-8, Sodium tartrate 1309-48-4, Magnesium oxide, uses 1555-53-9, Magnesium oleate 2836-32-0, Sodium glycolate 13329-67-4, Sodium 12-hydroxyoctadecanoate 15233-97-3 18200-72-1 25728-82-9, Sodium montanate 43168-33-8, Magnesium behenate 52258-46-5, Magnesium montanate 111010-83-4 116338-80-8 118337-09-0, 2,2'-Ethylidenebis(4,6-di-tert-butylphenyl) fluorophosphite 119735-73-8 119735-74-9 122757-26-0, 2,2'-Methylenebis(4,6-di-tert-butylphenyl) fluorophosphite 123651-05-8 133940-41-7 133949-89-0 147025-23-8 165597-51-3 165597-52-4 165597-53-5 165597-54-6 165597-55-7 165597-56-8 165597-57-9 165597-58-0 165597-59-1 165597-60-4 165597-61-5 174495-68-2 174495-69-3 174495-70-6 174495-71-7 174495-72-8 174495-73-9
- RL: MOA (Modifier or additive use); USES (Uses)  
(transparent, rigid, heat-resistant, and resilient crystalline polyolefin compns.)

L40 ANSWER 8 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:777040 HCAPLUS

DOCUMENT NUMBER: 123:339057

TITLE: Direct anodic oxidation of p-methoxytoluene in methanol. Effect of electrolysis conditions

AUTHOR(S): Ogibin, Yu. N.; Ilovaisky, A. I.; Merkulova, V. M.; Nikishin, G. I.

CORPORATE SOURCE: N. D. Zelinsky Institute Organic Chemistry, Russian Academy Sciences, Moscow, 117913, Russia



SOURCE: Izvestiya Akademii Nauk, Seriya Khimicheskaya (1995), (3), 524-7  
CODEN: IASKEA

PUBLISHER: Nauka

DOCUMENT TYPE: Journal

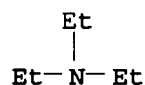
LANGUAGE: Russian

AB The effect of anions of supporting electrolytes (F-, dialkylphosphate, TsO- and BF<sub>4</sub>-) on the selectivity of direct anodic oxidation of p-methoxytoluene (PMT) to 4-methoxybenzaldehyde dimethylacetal in MeOH was studied. The best results was observed with F-.

IT 121-44-8, Triethylamine, uses 2870-30-6, Sodium diethyl phosphate 16298-74-1, Sodium dibutyl phosphate  
RL: NUU (Other use, unclassified); USES (Uses)  
(anion effect on anodic oxidation of methoxytoluene)

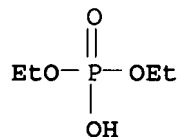
RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



RN 2870-30-6 HCAPLUS

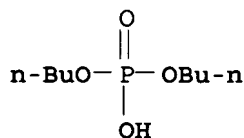
CN Phosphoric acid, diethyl ester, sodium salt (1:1) (CA INDEX NAME)



● Na

RN 16298-74-1 HCAPLUS

CN Phosphoric acid, dibutyl ester, sodium salt (1:1) (CA INDEX NAME)



● Na

CC 22-13 (Physical Organic Chemistry)  
Section cross-reference(s): 25, 72

IT 121-44-8, Triethylamine, uses 149-73-5, Trimethoxymethane  
429-42-5, Tetrabutylammonium tetrafluoroborate 733-44-8,  
Tetraethylammonium tosylate 2870-30-6, Sodium diethyl  
phosphate 7789-23-3, Potassium fluoride 15404-00-9,

4-Methylbenzenesulfonic acid compound with Triethylamine 16106-44-8,  
 Potassium tosylate 16298-74-1, Sodium dibutyl phosphate  
 RL: NUU (Other use, unclassified); **USES (Uses)**  
 (anion effect on anodic oxidation of methoxytoluene)

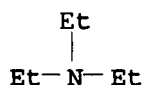
L40 ANSWER 9 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1995:729796 HCAPLUS  
 DOCUMENT NUMBER: 123:289459  
 TITLE: Phosphorus-containing polyester fibers, fabrics,  
 and their dyeing process  
 INVENTOR(S): Matsuoka, Takeshi; Araki, Yoshio; Ooguchi,  
 Masakatsu  
 PATENT ASSIGNEE(S): Toyo Boseki, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 07118924	A	19950509	JP 1993-272033	199310 29

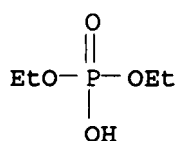
PRIORITY APPLN. INFO.: <-- JP 1993-272033  
 199310  
 29

AB The title polyester fibers with retention of strength  $\geq 80\%$  are mainly composed of ethylene terephthalate as structure units and containing 0.05-4.0% (based on P) compds. selected from P(O)(OR1)(OR2)(OR3), P(O)R4(OR2)(OR3), and P(O)R4(OR2)(AR5) (I) (R1-3 = H, C1-18 monovalent organic group; R4 = C1-18 monovalent organic group; R5 = monovalent ester-formable functional group; A = C1-18 divalent organic group; I may form cyclic anhydrides in the mol.). The fibers and fabrics are dyed in a liquid with pH 5.0-6.5 in the presence of amine acetic acid salts. Thus, 1297 parts terephthalic acid and 1067 parts ethylene glycol were transesterified at 230° in the presence of Et3N and Sb2O3 under H2O removal, blended with 11 parts of a 53:47 mixture of mono-Et phosphate and di-Et phosphate, stirred at 230° for 20 min, and polycondensed at 275° to give a polymer with intrinsic viscosity 0.57 containing P 0.57. A fabric obtained from the polymer was dyed in a bath containing 1.0% owf Dianix Blue AC-E 1 g/L Disper TL, mixture of AcOH, NaOAc, and buffer, and 6.0+10-3 mol/L cyclohexylamine acetate at bath ratio 1:100 and at 130° for 1 h to give a test piece with good color.

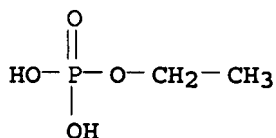
IT 121-44-8, Triethylamine, uses  
 RL: **MOA (Modifier or additive use); USES (Uses)**  
 (P-containing PET-type polyester fibers and dyeing in presence of amine acetic acid salts)  
 RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IT 598-02-7D, Diethyl phosphate, reaction products with poly(ethylene terephthalate) 1623-14-9D, Monoethyl phosphate, reaction products with poly(ethylene terephthalate)  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (P-containing PET-type polyester fibers and dyeing in presence of amine acetic acid salts)  
 RN 598-02-7 HCAPLUS  
 CN Phosphoric acid, diethyl ester (CA INDEX NAME)



RN 1623-14-9 HCAPLUS  
 CN Phosphoric acid, monoethyl ester (CA INDEX NAME)



IC ICM D01F006-84  
 ICS D03D015-00; D04B001-16; D06P003-52  
 ICA C08G063-692  
 CC 40-2 (Textiles and Fibers)  
 IT 121-44-8, Triethylamine, uses 1641-36-7 5153-63-9  
 7346-79-4  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (P-containing PET-type polyester fibers and dyeing in presence of amine acetic acid salts)  
 IT 598-02-7D, Diethyl phosphate, reaction products with poly(ethylene terephthalate) 1623-14-9D, Monoethyl phosphate, reaction products with poly(ethylene terephthalate) 25038-59-9D, PET, phosphorus-containing  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (P-containing PET-type polyester fibers and dyeing in presence of amine acetic acid salts)

L40 ANSWER 10 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1995:661100 HCAPLUS  
 DOCUMENT NUMBER: 123:130110  
 TITLE: Adhesive composition for printed wiring boards, laminates using it, and production of the wiring boards  
 INVENTOR(S): Takanezawa, Shin; Irino, Teturou; Toshaka, Yuuji; Kagaya, Takashi  
 PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan

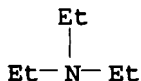
SOURCE: U.S., 5 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5419946	A	19950530	US 1994-314774	199409 29
JP 07170066	A	19950704	JP 1994-231959	199409 28
JP 3536937	B2	20040614	JP 1993-243455	199309 30

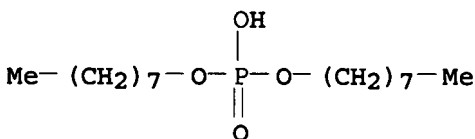
AB An adhesive composition containing a special internal mold release agent obtained from tri-, di-, or monoalkyl phosphates, the alkyl moiety having 6-18 C atoms, and an amine in addition to major components of an epoxy resin, acrylonitrile-butadiene rubber, an alkylphenol resin, and an inorg. filler is suitable for producing printed wiring boards by an additive process having excellent adhesion to plated Cu.

IT 121-44-8, Triethylamine, processes 3115-39-7, Dioctyl phosphate  
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); **USES (Uses)**  
 (adhesive composition for printed wiring boards containing)

RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



RN 3115-39-7 HCAPLUS  
 CN Phosphoric acid, dioctyl ester (CA INDEX NAME)



IC ICM B05D005-12  
 ICS B05D003-10; B32B005-16  
 INCL 428206000  
 CC 76-14 (Electric Phenomena)  
 IT 102-71-6, Triethanolamine, processes 121-44-8,

Triethylamine, processes 141-43-5, Monoethanolamine, processes 682-49-5, Trilauryl phosphate 2958-09-0, Monostearyl phosphate 3115-39-7, Dioctyl phosphate

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); **USES (Uses)**

(adhesive composition for printed wiring boards containing)

L40 ANSWER 11 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:661097 HCAPLUS

DOCUMENT NUMBER: 123:231522

TITLE: Thermosetting compositions, thermal latent acid catalysts, methods of coating and coated articles with good physicochem. properties, weather resistance and storage stability

INVENTOR(S): Ishidoya, Masahiro; Shibato, Kishio; Komoto, Keiji; Shibamoto, Kenji; Mashita, Mitsuyuki; Ohe, Osamu

PATENT ASSIGNEE(S): Nippon Oil and Fats Co., Ltd., Japan

SOURCE: U.S., 32 pp. Cont.-in-part of U.S. 5,352,740.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 5419929	A	19950530	US 1992-948017	199209 21
JP 04218561	A	19920810	JP 1991-89510	199103 28
US 5352740	A	19941004	US 1991-680356	199104 04
CA 2040167	A1	19911011	CA 1991-2040167	199104 10
CA 2040167	C	19971216		
JP 05320529	A	19931203	JP 1992-255847	199208 31
JP 2746005	B2	19980428		
US 5516839	A	19960514	US 1994-260002	199406 15
US 5549932	A	19960827	US 1995-401198	199503 09
US 5660937	A	19970826	US 1995-401368	

199503  
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US 5521011

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19960528

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US 1995-444160

199505  
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US 5578677

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19961126

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US 1995-578083

199512  
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## PRIORITY APPLN. INFO.:

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JP 1990-94267

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199004  
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JP 1990-259695

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199009  
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JP 1990-288776

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199010  
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JP 1991-89510

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US 1991-680356

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199104  
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JP 1991-283514

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199110  
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JP 1991-283515

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JP 1991-287129

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JP 1991-287130

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JP 1992-91985

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JP 1992-92240

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JP 1992-97055

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JP 1992-97057

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JP 1992-97058

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JP 1992-255847

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199208  
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US 1992-948017

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199209  
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US 1994-260002

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199406  
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AB Thermosetting composition comprises a compound having  $\geq 2$  carboxyl groups blocked by a vinyl (thio)ether or a heterocyclic compound having a vinyl type double bond and O or S as the hetero atom, a compound having  $\geq 2$  reactive groups which can form a chemical bond with the blocked carboxyl compound by heating, a specific vinyl (thio)ether, and optionally a thermal latent acid catalyst. The blocked carboxyl group of the first compound and the reactive functional group of the second compound may be in the same mol. A component compound was prepared by polymerization of methacrylic acid-Et vinyl ether reaction product (acid value  $< 30$ ) 167.2, Bu methacrylate 100, Me methacrylate 178.6, and 2-ethylhexyl acrylate 135.4 parts. A coating composition curable in 30 min at  $120^\circ$  comprised the above component compound 100, Denacol EX-421 15.5, titania 52.4, Moadaflow 0.3, xylene 7, BuOAc 2, and Pr vinyl ether 3.6 parts.

IT 121-44-8, Triethylamine, uses 1070-03-7

RL: CAT (Catalyst use); USES (Uses)

(thermosetting compns., thermal latent acid catalysts, methods of coating and coated articles with good physicochem. properties, weather resistance and storage stability)

RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

Et

Et-N-Et

RN 1070-03-7 HCAPLUS

CN Phosphoric acid, mono(2-ethylhexyl) ester (CA INDEX NAME)

CH<sub>2</sub>-OPO<sub>3</sub>H<sub>2</sub>

Et-CH-Bu-n

IC ICM C08L029-00

ICS C08L033-00; C08L037-00; C08L067-02

INCL 427386000

CC 42-10 (Coatings, Inks, and Related Products)

IT 78-40-0, Triethyl phosphate 104-15-4, uses 109-02-4,  
 N-Methylmorpholine 110-86-1, Pyridine, uses 121-44-8,  
 Triethylamine, uses 149-57-5, 2-Ethylhexanoic acid 557-09-5,  
 Zinc octanoate 1070-03-7 7646-85-7, Zinc chloride, uses  
 7699-45-8, Zinc bromide 10041-19-7, Bis(2-ethylhexyl)  
 sulfosuccinate 120326-69-4, Dodecylbenzenesulfonic acid  
 N-methylmorpholine salt  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (thermosetting compns., thermal latent acid catalysts, methods of  
 coating and coated articles with good physicochem. properties,  
 weather resistance and storage stability)

L40 ANSWER 12 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:561652 HCAPLUS  
 DOCUMENT NUMBER: 123:145729  
 TITLE: Curable polymer compositions with good storage  
 stability  
 INVENTOR(S): Ando, Naotami; Nakayama, Kazuya; Hatano,  
 Takanori  
 PATENT ASSIGNEE(S): Kanegafuchi Chemical Ind, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07053881	A	19950228	JP 1993-203337	199308 17
JP 3357929	B2	20021216	JP 1993-203337	199308 17

PRIORITY APPLN. INFO.: <--

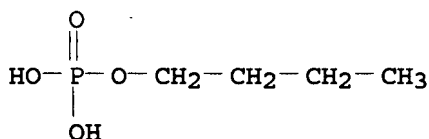
AB Title compns., giving crack-resistant coatings, comprise (A) polymer emulsions containing SiR1aX13-a (R1 = C1-10 alkyl, aryl, aralkyl; X1 = halo, alkoxy, OH, acyloxy, aminoxy, phenoxy, thioalkoxy, NH2; a = 0-2) and (B) mixts. or reaction products of water-soluble acidic phosphoric acid esters and amines. Thus, 10 parts 40%-solid copolymer emulsion of  $\gamma$ -methacryloxypropyltrimethoxysilane, Bu methacrylate, Me methacrylate, and Bu acrylate and 0.1 part mixture of MP 4 and 3-amino-1-propanol were mixed to give a composition showing viscosity 20 cP initially and 26 cP after 1 mo at 50°, which was applied on a glass sheet to give a film without cracks.

IT 121-44-8, uses 1623-15-0, MP 4  
 RL: TEM (Technical or engineered material use); **USES (Uses)**  
 (crosslinking agents; curable silyl-containing polymer emulsions with  
 good storage stability for crack-resistant coatings)  
 RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)





RN 1623-15-0 HCAPLUS  
 CN Phosphoric acid, monobutyl ester (CA INDEX NAME)



IC ICM C08L101-10  
 ICS C08K005-17; C08K005-521  
 ICA C08F030-08  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 42  
 IT 121-44-8, uses 156-87-6 1623-15-0, MP 4  
 76483-21-1, AP 3 (phosphate)  
 RL: TEM (Technical or engineered material use); **USES (Uses)**  
 (crosslinking agents; curable silyl-containing polymer emulsions with  
 good storage stability for crack-resistant coatings)

L40 ANSWER 13 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1994:511265 HCAPLUS  
 DOCUMENT NUMBER: 121:111265  
 TITLE: Two-part, room-temperature-curable silicone  
 compositions  
 INVENTOR(S): Somemiya, Toshio; Makino, Zyunzo  
 PATENT ASSIGNEE(S): Cemedine Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 14 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 563894	A1	19931006	EP 1993-105273	199303 30
EP 563894 R: DE, FR, GB	B1	19980107		
JP 05331447	A	19931214	JP 1993-5755	199301 18
JP 3332438	B2	20021007		
PRIORITY APPLN. INFO.:			JP 1992-76937	A 199203 31

JP 1993-5755

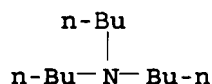
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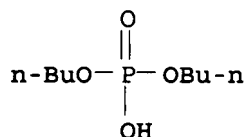
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- AB Title compns., useful for adhesives, coatings, gap-fillers, and casting materials, contain high-mol.-weight reactive silicone and polymerization promoter for radically polymerizing monomer in 1 component and a radically polymerizing monomer, polymerization initiator, and a curing promoter for the high-mol.-weight reactive silicone in the other component. These compns. are rapidly curing and the cured products have flexibility equivalent to rubbers. Thus, a composition containing Silicone S-303 100, dicyclopentenyl methacrylate (I) 20, and cumene hydroperoxide 2 parts was mixed in a 1:1 ratio with a composition containing I 50, 2-hydroxypropyl methacrylate 50, V acetylacetonate 0.05, hydroquinone 0.5, and 2-methacryloyloxyethyl phosphate 2 parts to give composition that exhibited setting time 6 min as an adhesive between steel plates, good flexibility as a coating on the steel plates, and uniform cure over the entire sample at the same time.
- IT 102-82-9, Tributylamine 107-66-4, Dibutyl phosphate  
 RL: **USES (Uses)**  
 (vulcanization accelerators, for 2-part room-temperature-curable silicone rubber compns. containing (meth)acrylates)
- RN 102-82-9 HCAPLUS  
 CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)



- RN 107-66-4 HCAPLUS  
 CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



- IC ICM C08F299-08  
 CC 39-10 (Synthetic Elastomers and Natural Rubber)  
 Section cross-reference(s): 38, 42
- IT 67-51-6, 3,5-Dimethylpyrazole 77-58-7, Dibutyltin dilaurate  
 80-15-9, Cumene hydroperoxide 81-07-2, Saccharin 89-25-8,  
 3-Methyl-1-phenyl-5-pyrazolone 94-36-0, Benzoyl peroxide, uses  
 96-27-5 96-45-7, Ethylenethiourea 99-97-8, N,N-Dimethyl-p-  
 toluidine 102-82-9, Tributylamine 107-66-4,  
 Dibutyl phosphate 919-30-2 1338-23-4, Methyl ethyl ketone  
 peroxide 2530-85-0 4253-22-9, Dibutyltin sulfide 7440-48-4D,  
 Cobalt, naphthenic acid salts 13476-99-8, Vanadium acetylacetonate  
 22221-10-9, Copper 2-ethylhexanoate 24599-21-1 52628-03-2,  
 2-Methacryloyloxyethyl phosphate 83590-14-1, Vanox 808  
 154839-74-4  
 RL: **USES (Uses)**  
 (vulcanization accelerators, for 2-part room-temperature-curable silicone rubber compns. containing (meth)acrylates)

L40 ANSWER 14 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1992:196350 HCAPLUS  
 DOCUMENT NUMBER: 116:196350  
 TITLE: Lactone-modified alicyclic composition, and an  
 epoxidized composition thereof  
 INVENTOR(S): Fujiwa, Takaaki; Takemoto, Shin; Isobe,  
 Tomohisa; Harano, Yoshiyuki  
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 73 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 466596	A2	19920115	EP 1991-401935	199107 10
EP 466596	A3	19920916		
EP 466596	B1	19941005		
R: CH, DE, FR, GB, IT, LI, NL				
JP 04069360	A	19920304	JP 1990-182124	199007 10
JP 2926262	B2	19990728		
JP 04100819	A	19920402	JP 1990-216569	199008 17
JP 2916941	B2	19990705		
JP 04170411	A	19920618	JP 1990-298482	199011 02
JP 2962805	B2	19991012		
JP 04178378	A	19920625	JP 1990-305829	199011 09
JP 2869753	B2	19990310		
US 5169965	A	19921208	US 1991-728114	199107 10
US 5198509	A	19930330	US 1992-895360	199206 08
US 5338879	A	19940816	US 1992-930094	199208 13
JP 11152251	A	19990608	JP 1998-273810	199809

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JP 3016428  
PRIORITY APPLN. INFO.:

B2 20000306

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JP 1990-182124

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JP 1990-216569

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JP 1990-298482

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JP 1990-305829

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US 1991-728114

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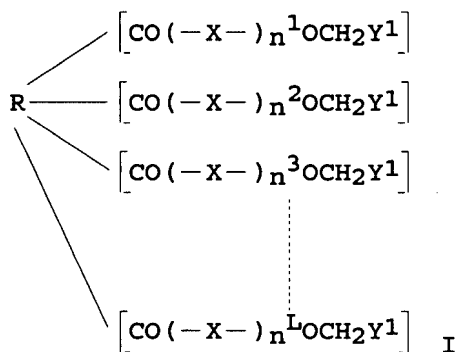
US 1992-895360

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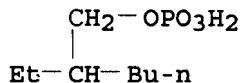
GI



AB Title lactone-modified compns. comprise I (R = C1-30 alkyl, aromatic, or alkenyl; Y1 =  $\geq 1$  of 3-cyclohexenyl, 1-methyl-3-cyclohexenyl, 6-methyl-3-cyclohexenyl; X = lactone-derived group O(CR1R2)cCO and/or O(CR1R2)dCO where R1, R2 are independently H and Me, c and d are independently 4-8 integers, and n1 to nL is  $\geq 0$ , resp., n1 + n2 + n3 ... nL is  $\geq 1$ , which correspond to total moles lactone introduced, L =  $\geq 2$ ). In I,  $\geq 1$  of Y1 can be epoxidized. The compns. are heat-curable, photocurable, or photo-cationically curable. Thus, a caprolactone is adducted with 3-cyclohexene-1-methanol (II) and the adduct is reacted with 1,2,3,4-butanetetracarboxylic acid to give I (n1 + n2 + n3 + n4 = 3 and Y1 = 3-cyclohexenyl) (III). III under N in EtOAc was epoxidized with AcOOH in presence of 2-ethylhexyl Na tripolyphosphate at 40° to give product by epoxidn. of the

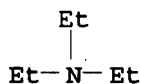
cyclohexenyl rings. The epoxy compds. were photocurable with Degacure K126 (photo-cationic initiator) at 80 W/cm at 6.5 cm for 100 s to give a cured plate or the epoxy compds. were used in coatings.

IT 31044-12-9, Sodium 2-ethylhexyl phosphate  
 RL: **USES (Uses)**  
 (additives, for epoxidn. of lactone-modified alicyclic compds.)  
 RN 31044-12-9 HCAPLUS  
 CN Phosphoric acid, mono(2-ethylhexyl) ester, sodium salt (1:?) (CA INDEX NAME)



●x Na

IT 121-44-8, Triethylamine, uses  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysts, for reaction of acrylic acids with epoxy compds.)  
 RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IC ICM C07C069-608  
 ICS C07D303-40; C07C069-34; C07C067-02; C07D301-03; C08G059-20  
 CC 42-9 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 35  
 IT 1693-78-3, 2-Ethylhexyl pyrophosphate 2466-09-3, Pyrophosphoric acid 7320-34-5, Potassium pyrophosphate 7632-05-5, Sodium phosphate 7664-38-2, Phosphoric acid, miscellaneous 7722-88-5 7758-29-4, Sodium tripolyphosphate 7783-28-0, Ammonium hydrogen phosphate 10380-08-2, Tripolyphosphoric acid 13845-36-8, Potassium tripolyphosphate 16068-46-5, Potassium phosphate 31044-12-9, Sodium 2-ethylhexyl phosphate 68550-93-6  
 RL: **USES (Uses)**  
 (additives, for epoxidn. of lactone-modified alicyclic compds.)  
 IT 121-44-8, Triethylamine, uses  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysts, for reaction of acrylic acids with epoxy compds.)

L40 ANSWER 15 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1991:231898 HCAPLUS  
 DOCUMENT NUMBER: 114:231898  
 TITLE: Lubricating oil composition  
 INVENTOR(S): Yamazaki, Akira; Kawaji, Isamu; Sakakibara, Tadamori  
 PATENT ASSIGNEE(S): Tonen Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 27 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent

LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
EP 407124	A1	19910109	EP 1990-307209	199007 02
			<--	
R: DE, FR, GB JP 03039396	A	19910220	JP 1989-174259	198907 07
			<--	
JP 03039397	A	19910220	JP 1989-174260	198907 07
			<--	
JP 03039400	A	19910220	JP 1989-174261	198907 07
			<--	
JP 03039398	A	19910220	JP 1989-174262	198907 07
			<--	
JP 2845498	B2	19990113		
PRIORITY APPLN. INFO.:			JP 1989-174259	A 198907 07
			<--	
			JP 1989-174260	A 198907 07
			<--	
			JP 1989-174261	A 198907 07
			<--	
			JP 1989-174262	A 198907 07
			<--	

OTHER SOURCE(S): MARPAT 114:231898

AB A lubricating oil composition is prepared by incorporating a phosphoric acid ester, a phosphorous acid ester, and their amine salts and an aliphatic dicarboxylic acid into a base oil, or further incorporating an alkylamine and/or succinimide or perbasic Mg or Ca sulfonate. The lubricating oil can be used for automatic transmission of an automobile.

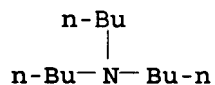
IT 102-82-9, Tributylamine 107-66-4, Dibutylphosphate 107-66-4D, Dibutylphosphate, amine salts 3115-39-7, Dioctyl phosphate 7057-92-3, Dilauryl phosphate

RL: **USES (Uses)**

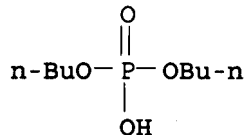
(friction modifier, lubricating oils containing, for automatic transmission)

RN 102-82-9 HCAPLUS

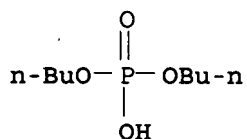
CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)



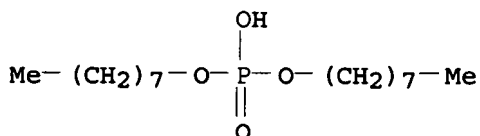
RN 107-66-4 HCAPLUS  
CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



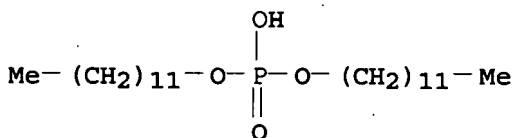
RN 107-66-4 HCAPLUS  
CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



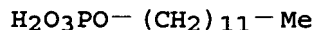
RN 3115-39-7 HCAPLUS  
CN Phosphoric acid, dioctyl ester (CA INDEX NAME)



RN 7057-92-3 HCAPLUS  
CN Phosphoric acid, didodecyl ester (CA INDEX NAME)

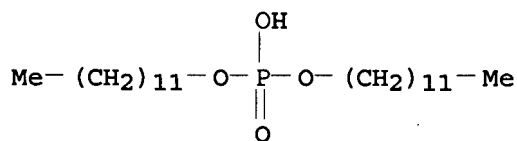


IT 2627-35-2D, Monolaurylphosphate, amine salts  
7057-92-3D, Dilauryl phosphate, amine salts  
RL: **USES (Uses)**  
(friction modifiers, lubricating oils containing, for automatic transmission)  
RN 2627-35-2 HCAPLUS  
CN Phosphoric acid, monododecyl ester (CA INDEX NAME)



RN 7057-92-3 HCAPLUS

CN Phosphoric acid, didodecyl ester (CA INDEX NAME)



IC ICM C10M141-10

ICS C10M163-00; C10M169-04

ICI C10M141-10, C10M129-42, C10M129-76, C10M133-04, C10M133-56,  
C10M135-24, C10M137-02, C10M137-04, C10M137-08; C10M163-00,  
C10M129-42, C10M129-76, C10M133-04, C10M133-56, C10M135-24,  
C10M137-02, C10M137-04

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)

IT 102-79-4, Butyldiethanolamine 102-82-9, Tributylamine  
102-86-3, Trihexylamine 102-87-4, Trilaurylamine 102-88-5,  
Tristearylamine 107-66-4, Dibutylphosphate  
107-66-4D, Dibutylphosphate, amine salts 109-73-9,  
Butylamine, uses and miscellaneous 110-58-7, Pentylamine  
111-16-0, Heptanedioic acid 111-20-6, Decanedioic acid, uses and  
miscellaneous 111-26-2, Hexylamine 111-42-2, Diethanolamine,  
uses and miscellaneous 111-86-4, Octylamine 111-92-2,  
Dibutylamine 112-90-3, Oleylamine 112-99-2, Distearylamine  
120-07-0, Phenylldiethanolamine 122-98-5 123-99-9, Azelaic acid,  
uses and miscellaneous 124-04-9, Hexanedioic acid, uses and  
miscellaneous 124-22-1, Laurylamine 124-30-1, Stearylamine  
143-16-8, Dihexylamine 505-48-6, Suberic acid 621-77-2,  
Triptylamine 693-23-2, Dodecanedioic acid 821-38-5,  
Tetradecanedioic acid 871-70-5, Octadecanedioic acid 1116-76-3,  
Trioctylamine 1120-48-5, Dioctylamine 1541-67-9,  
Lauryldiethanolamine 2050-51-3 2050-92-2, Dipentylamine  
2424-92-2, Eicosanedioic acid 3007-31-6, Dilaurylamine  
3115-39-7, Dioctyl phosphate 5345-94-8 6708-53-8,  
Triacontanedioic acid 7057-92-3, Dilauryl phosphate  
7722-71-6 13127-82-7 14450-07-8, Diolel phosphate 15196-28-8  
21514-82-9 31314-15-5 31314-16-6 31314-17-7 35841-98-6  
37519-50-9 68810-31-1, Dipropanolamine 72648-60-3 132935-41-2  
132950-91-5 133119-26-3 133119-27-4 133119-28-5 133946-85-7

RL: **USES (Uses)**

(friction modifier, lubricating oils containing, for automatic  
transmission)

IT 2627-35-2D, Monolaurylphosphate, amine salts

7057-92-3D, Dilauryl phosphate, amine salts 7664-38-2D,  
Phosphoric acid, monoalkyl esters, amine salts 14450-07-8D,  
Diolel phosphate, amine salts

RL: **USES (Uses)**

(friction modifiers, lubricating oils containing, for automatic  
transmission)

L40 ANSWER 16 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:8026 HCAPLUS

DOCUMENT NUMBER: 114:8026

TITLE: Coextrudable polyolefin adhesive compositions



and their use  
 INVENTOR(S): Wong, Chun Sing  
 PATENT ASSIGNEE(S): Du Pont Canada, Inc., Can.  
 SOURCE: Brit. UK Pat. Appl., 19 pp.  
 CODEN: BAXXDU  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2228488	A	19900829	GB 1989-4438	198902 27
GB 2228488	B	19920325	<--	
CA 2010839	A1	19900827	CA 1990-2010839	199002 23
US 5115033	A	19920519	US 1990-485708	199002 27
PRIORITY APPLN. INFO.:			GB 1989-4438	A 198902 27

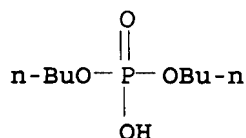
AB The title adhesives, useful for bonding dissimilar materials (especially polar and nonpolar polymers), contain C<sub>2</sub>H<sub>4</sub>-unsatd. carboxylic acid copolymers, their metal salts, or polyolefins grafted with unsatd. carboxylic acids or anhydrides; and adhesion promoters (alkyl phosphates, alkylamines, heterocyclic amines, or amino acids or their salts). Thus, coextruding a mixture of linear low-d. polyethylene (I), maleated (1%) I, and 50 ppm Bu<sub>3</sub>N with C<sub>2</sub>H<sub>4</sub>-vinyl alc. copolymer at 200-210° gave a film with 180° peel adhesion 240 g/cm; vs. 105 without Bu<sub>3</sub>N.

IT 102-82-9, Tributylamine 107-66-4, Dibutylphosphate  
 RL: **USES (Uses)**  
 (couplers, for polyolefin blend adhesives)

RN 102-82-9 HCAPLUS  
 CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)

n-Bu  
 |  
 n-Bu—N—Bu-n

RN 107-66-4 HCAPLUS  
 CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



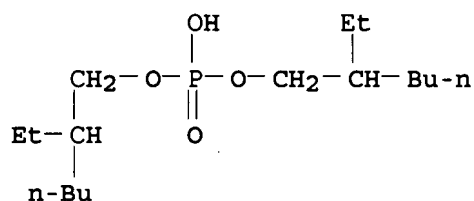
IC ICM C09J123-00  
ICS C08K005-17; C08K005-34; C08K005-52; C08K005-521; C08L023-00  
CC 38-3 (Plastics Fabrication and Uses)  
IT 51-17-2, Benzimidazole 71-00-1, L-Histidine, uses and  
miscellaneous 91-22-5, Quinoline, uses and miscellaneous  
102-82-9, Tributylamine 107-66-4, Dibutylphosphate  
1116-76-3 6000-44-8, Glycine sodium salt 7664-38-2D, Phosphoric  
acid, alkyl esters  
RL: **USES (Uses)**  
(couplers, for polyolefin blend adhesives)

L40 ANSWER 17 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1990:632114 HCAPLUS  
DOCUMENT NUMBER: 113:232114  
TITLE: Homogeneous rare earth coordination catalysts  
for copolymerization of styrene with  
acrylonitrile  
AUTHOR(S): Yang, Mujie; Xu, Jinlong; Shen, Zhiquan  
CORPORATE SOURCE: Dep. Chem., Zhejiang Univ., Hangzhou, Peop. Rep.  
China  
SOURCE: Journal of Polymer Science, Part A: Polymer  
Chemistry (1990), 28(12), 3231-40  
CODEN: JPACEC; ISSN: 0887-624X  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Acrylonitrile (I) was polymerized with styrene (II) in presence of  
homogeneous rare earth coordination catalysts,  $\text{ML}_3\text{-Al(iso-Bu)}_3\text{-CCl}_4$ ,  
where M is a lanthanide metal and L is a ligand. The kinetics of  
the polymerization in presence of Nd phosphonate- $\text{Al(iso-Bu)}_3\text{-CCl}_4$  catalysts  
were determined. The catalytic activity of rare earth elements in  
lanthanide phosphonate-containing catalysts and ligands in  $\text{NdL}_3$ -containing  
catalysts for the copolymerization were in the following orders:  $\text{Yb} > \text{Er} >$   
 $\text{Tb} \text{ .apprx. } \text{Tm} > \text{Ho} > \text{Ce} > \text{Lu} \text{ .apprx. } \text{Sm} \text{ .apprx. } \text{La} > \text{Pr} > \text{Nd}$ , and  $\text{Nd}$   
 $(\text{naphthenate})_3 > \text{Nd phosphonates} > \text{Nd (acetylacetonate)}_3$ , resp. The  
I-II copolymers had alternating structure and softening points of  
195-230°.

IT 23184-57-8 26312-52-7 38326-04-4  
38326-05-5 45324-94-5 45324-95-6  
45324-97-8 79950-30-4 79950-31-5  
79950-32-6 100477-70-1  
RL: CAT (Catalyst use); **USES (Uses)**  
(catalysts, containing triisobutylaluminum and carbon tetrachloride,  
for alternating copolymerization of acrylonitrile with styrene)

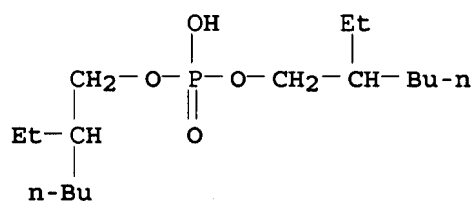
RN 23184-57-8 HCAPLUS  
CN Phosphoric acid, bis(2-ethylhexyl) ester, samarium(3+) salt (8CI,  
9CI) (CA INDEX NAME)



● 1/3 Sm(III)

RN 26312-52-7 HCAPLUS

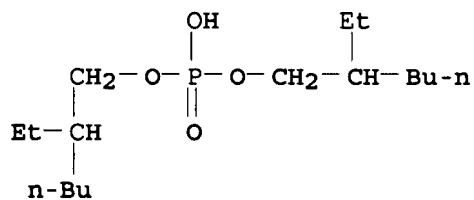
CN Phosphoric acid, bis(2-ethylhexyl) ester, thulium(3+) salt (8CI, 9CI) (CA INDEX NAME)



● 1/3 Tm(III)

RN 38326-04-4 HCAPLUS

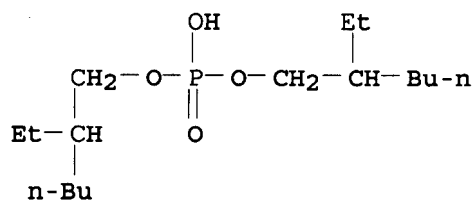
CN Phosphoric acid, bis(2-ethylhexyl) ester, neodymium(3+) salt (3:1) (CA INDEX NAME)



● 1/3 Nd(III)

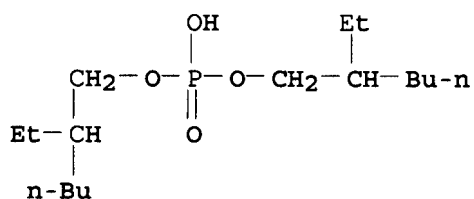
RN 38326-05-5 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, ytterbium(3+) salt (9CI) (CA INDEX NAME)



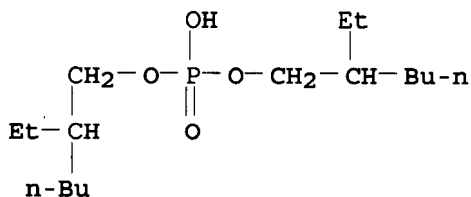
## ● 1/3 Yb(III)

RN 45324-94-5 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, holmium(3+) salt (9CI)  
(CA INDEX NAME)

## ● 1/3 Ho(III)

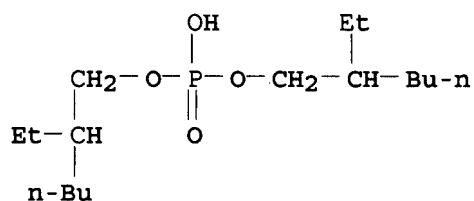
RN 45324-95-6 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, lanthanum(3+) salt (9CI)  
(CA INDEX NAME)

## ● 1/3 La(III)

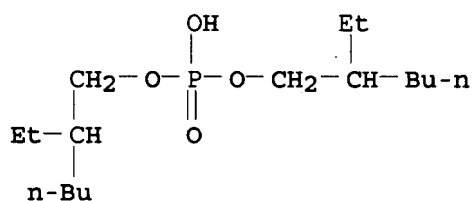
RN 45324-97-8 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, praseodymium(3+) salt  
(9CI) (CA INDEX NAME)



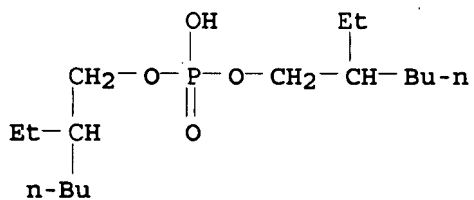
## ● 1/3 Pr(III)

RN 79950-30-4 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, terbium(3+) salt (9CI)  
(CA INDEX NAME)

## ● 1/3 Tb(III)

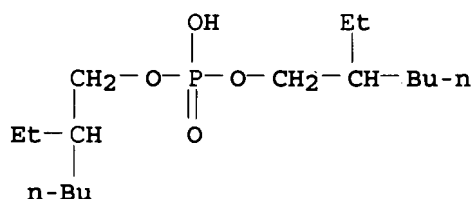
RN 79950-31-5 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, erbium(3+) salt (9CI) (CA  
INDEX NAME)

## ● 1/3 Er(III)

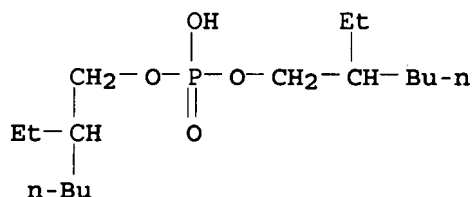
RN 79950-32-6 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, lutetium(3+) salt (9CI)  
(CA INDEX NAME)



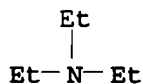
## ● 1/3 Lu(III)

RN 100477-70-1 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, cerium(3+) salt (9CI) (CA INDEX NAME)



## ● 1/3 Ce(III)

IT 121-44-8, uses and miscellaneous  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysts, containing triisobutylaluminum and neodymium phosphonate,  
 for alternating copolymn. of acrylonitrile with styrene)  
 RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)  
 IT 7440-00-8D, Neodymium, naphthenates 14589-38-9 23184-57-8  
 26312-52-7 38326-04-4 38326-05-5  
 45324-94-5 45324-95-6 45324-97-8  
 79321-05-4 79950-30-4 79950-31-5  
 79950-32-6 100477-70-1  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysts, containing triisobutylaluminum and carbon tetrachloride,  
 for alternating copolymn. of acrylonitrile with styrene)  
 IT 67-66-3, uses and miscellaneous 68-12-2, uses and miscellaneous  
 75-09-2, uses and miscellaneous 121-44-8, uses and  
 miscellaneous  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysts, containing triisobutylaluminum and neodymium phosphonate,  
 for alternating copolymn. of acrylonitrile with styrene)

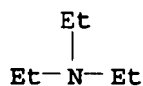
L40 ANSWER 18 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1988:76093 HCAPLUS  
 DOCUMENT NUMBER: 108:76093  
 TITLE: Crystalline block copolymer and process for  
 producing the same  
 INVENTOR(S): Takeshi, Ikematu; Hideo, Morita; Akiyoshi,  
 Hirata  
 PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 46 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 234512	A2	19870902	EP 1987-102388	198702 19
EP 234512	A3	19890517		
EP 234512	B1	19960522		
R: BE, DE, ES, FR, GB, IT				
JP 62192416	A	19870824	JP 1986-33945	198602 20
JP 03064526	B	19911007		
JP 62215616	A	19870922	JP 1986-57096	198603 17
JP 03064527	B	19911007		
JP 62275114	A	19871130	JP 1986-117188	198605 23
JP 04003761	B	19920124		
ES 2087057	T3	19960716	ES 1987-102388	198702 19
US 5159022	A	19921027	US 1991-703698	199105 21
PRIORITY APPLN. INFO.:			JP 1986-33945	A 198602 20
			JP 1986-57096	A 198603 17
			JP 1986-117188	A 198605 23

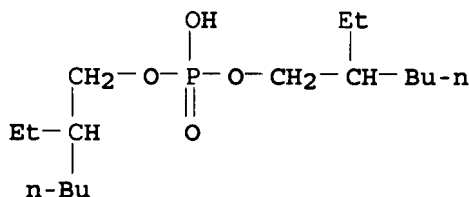
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US 1987-17235 B1  
198702  
20

<--  
US 1989-342653 B1  
198904  
25

- AB Block copolymers containing  $\geq 1$  crystalline 1,4-trans conjugated diene polymer block sandwiched between  $\geq 2$  vinylarom. hydrocarbon blocks (glass temperature  $\geq 50^\circ$ ) are prepared using a composite catalyst containing (A) organic Ba or Sr compds., (B) organic Li compds., (C) organic Mg compds., and optionally (D) organic Al or Zn compds. Thus, a mixture containing 1.5 kg cyclohexane solution (containing 20% styrene), 0.0113 mol Bu<sub>2</sub>Mg, 0.0113 mol sec-BuLi and 0.034 mol THF was heated at 65° for 3 h to give polystyrene at 100% conversion, mixed with 0.0023 mol bis(2-ethylhexyl)phosphate of lanthanum metal, and 3.5 kg cyclohexane solution (containing 20% 1,3-butadiene), heated at 65° for 3 h to give a diblock polymer (number-average mol. weight 32,600), and finally coupled with di-Ph carbonate at 65° for 1 h to give a polymer (number-average mol. weight 64,000) with elongation 700%, resilience 58%, shape recovery temperature 60°, and shape recovery 95%, vs. 180, 56, not recovered, and 40, resp., for a similar run without using coupling agents.
- IT 121-44-8, uses and miscellaneous 23184-57-8  
38326-04-4 45324-97-8 79950-28-0  
79950-29-1 100477-70-1 112667-44-4D,  
lanthanide salts 112673-79-7  
RL: CAT (Catalyst use); USES (Uses)  
(catalysts, for polymerization of styrene and dienes, for manufacture of crystalline block copolymers)
- RN 121-44-8 HCAPLUS  
CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



- RN 23184-57-8 HCAPLUS  
CN Phosphoric acid, bis(2-ethylhexyl) ester, samarium(3+) salt (8CI, 9CI) (CA INDEX NAME)

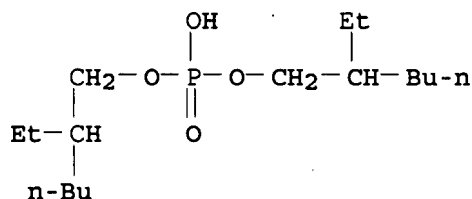


● 1/3 Sm(III)

- RN 38326-04-4 HCAPLUS



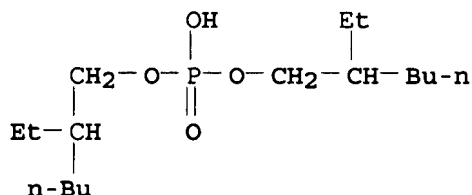
CN Phosphoric acid, bis(2-ethylhexyl) ester, neodymium(3+) salt (3:1)  
(CA INDEX NAME)



● 1/3 Nd(III)

RN 45324-97-8 HCAPLUS

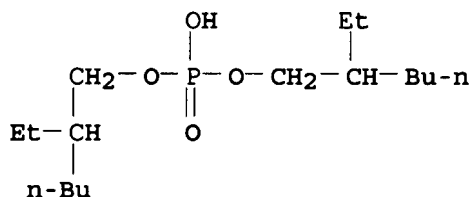
CN Phosphoric acid, bis(2-ethylhexyl) ester, praseodymium(3+) salt  
(9CI) (CA INDEX NAME)



● 1/3 Pr(III)

RN 79950-28-0 HCAPLUS

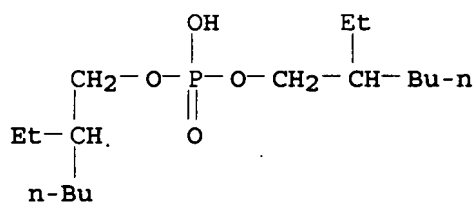
CN Phosphoric acid, bis(2-ethylhexyl) ester, europium(3+) salt (9CI)  
(CA INDEX NAME)



● 1/3 Eu(III)

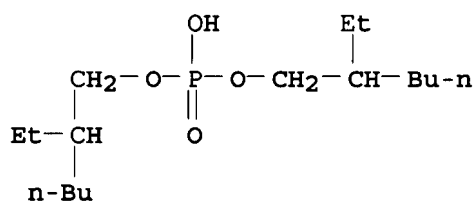
RN 79950-29-1 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, gadolinium(3+) salt (9CI)  
(CA INDEX NAME)



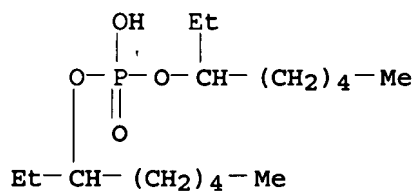
● 1/3 Gd(III)

RN 100477-70-1 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, cerium(3+) salt (9CI) (CA INDEX NAME)

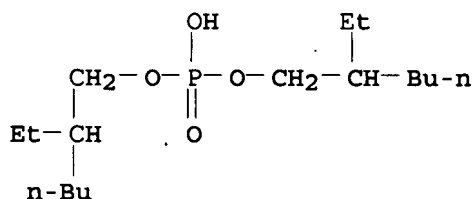


● 1/3 Ce(III)

RN 112667-44-4 HCAPLUS  
 CN 3-Octanol, hydrogen phosphate (9CI) (CA INDEX NAME)



RN 112673-79-7 HCAPLUS  
 CN 1-Hexanol, 2-ethyl-, hydrogen phosphate, promethium(3+) salt (9CI)  
 (CA INDEX NAME)



● 1/3 Pm(III)

IC ICM C08F297-00  
 CC 35-4 (Chemistry of Synthetic High Polymers)  
 IT 97-93-8, uses and miscellaneous 100-99-2, uses and miscellaneous  
 109-99-9, uses and miscellaneous 121-44-8, uses and  
 miscellaneous 149-57-5D, lanthanide salts 557-20-0 598-30-1  
 871-27-2 1116-73-0 1191-47-5, Dibutyl magnesium 1854-19-9  
 2388-10-5 2397-67-3 13525-99-0D, lanthanide salts 14802-03-0D,  
 lanthanide salts 23184-57-8 25154-52-3D, lanthanide  
 salts 26206-66-6D, lanthanide salts 28575-89-5 28987-17-9  
 31291-42-6 37411-25-9 38326-04-4 45324-97-8  
 62202-86-2, Butylethyl magnesium 79950-28-0  
 79950-29-1 84348-31-2 84370-80-9 96024-62-3, Magala  
 7.5E 100477-70-1 105937-59-5, Lanthanum  
 bis(2-ethylhexyl)phosphate 112667-44-4D, lanthanide salts  
 112673-79-7 112673-80-0 112673-81-1 112673-82-2  
 112673-83-3  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysts, for polymerization of styrene and dienes, for manufacture of  
 crystalline block copolymers)

L40 ANSWER 19 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1987:407824 HCAPLUS  
 DOCUMENT NUMBER: 107:7824  
 TITLE: Titanium slurries for polyesters  
 INVENTOR(S): Watanabe, Katsumi; Ueda, Tomoaki; Okasaka,  
 Hidesada  
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62018423	A	19870127	JP 1985-156382	198507 16

PRIORITY APPLN. INFO.: JP 1985-156382  
 198507  
 16

AB Fine granules of Ti oxide having primary granular diameter <2 μ are

dispersed in glycols with high-shear dispersing apparatus using P compds. and alkalies as dispersants. TiO<sub>2</sub> was dispersed in ethylene glycol (I) in the presence of H<sub>3</sub>PO<sub>4</sub> and Et<sub>4</sub>NOH and used in the manufacture of di-Me terephthalate-I copolymer.

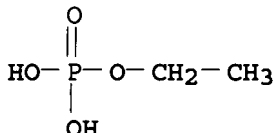
IT 1623-14-9, Monoethyl phosphate

RL: **USES (Uses)**

(dispersing agents, containing alkalies, for titanium oxide in ethylene glycol)

RN 1623-14-9 HCAPLUS

CN Phosphoric acid, monoethyl ester (CA INDEX NAME)



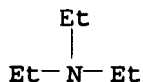
IT 121-44-8, uses and miscellaneous

RL: **USES (Uses)**

(dispersing agents, containing phosphorus compds., for titanium oxide in ethylene glycol)

RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IC ICM C08G063-22

CC 35-4 (Chemistry of Synthetic High Polymers)

IT 1623-14-9, Monoethyl phosphate 7601-54-9, Trisodium

phosphate 7664-38-2, uses and miscellaneous 7722-88-5

13011-54-6, Ammonium sodium hydrogen phosphate 50813-16-6, Sodium metaphosphate

RL: **USES (Uses)**

(dispersing agents, containing alkalies, for titanium oxide in ethylene glycol)

IT 77-98-5, Tetraethylammonium hydroxide 121-44-8, uses and

miscellaneous 1310-58-3, Potassium hydroxide, uses and

miscellaneous 1310-73-2, Sodium hydroxide, uses and miscellaneous

1336-21-6, Ammonium hydroxide

RL: **USES (Uses)**

(dispersing agents, containing phosphorus compds., for titanium oxide in ethylene glycol)

L40 ANSWER 20 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1987:102831 HCAPLUS

DOCUMENT NUMBER: 106:102831

TITLE: Onium salt catalysts for polymerization of thermosetting polycarbonates

INVENTOR(S): Mues, Peter; Kerimis, Dimitrios; Mueller, Hanns Peter; Buysch, Hans Josef

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 7 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3523399	A1	19870108	DE 1985-3523399	198506 29
EP 209722	A1	19870128	EP 1986-108236	198606 16
EP 209722 R: DE, FR, GB, IT, NL	B1	19880831		
US 4707539	A	19871117	US 1986-875602	198606 18
JP 62004723	A	19870110	JP 1986-147239	198606 25
PRIORITY APPLN. INFO.:			DE 1985-3523399	A 198506 29

AB Thermosetting polycarbonates are prepared by ring-opening polymerization of cyclic carbonates with bifunctional, crosslinking cyclic carbonates in the presence of the onium salts R1R2R3R4L OnP(O)Y2-nY1 (L = N, P; R1 = H, hydrocarbyl; R2-4 = H, hydrocarbyl, or form a ring; Y, Y1 = alkoxy, aryloxy, alkylthio, alkyl, aryl; n = 1 or 2) as catalysts. A mixture of neopentyl glycol cyclic carbonate 90, 4-ethyl-4-(hydroxymethyl)-1,3-dioxan-2-one carbonate (2:1) 10, and Et3N·MePO(OMe)2 0.1 part, heated at 150°, solidified in 5-10 min to give a clear, tough, elastic, strong polycarbonate.

IT 121-44-8, uses and miscellaneous  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, containing phosphate esters, for polymerization of cyclic carbonates)

RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

Et  
 |  
 Et-N-Et

IT 86695-30-9, Triethylaminedibutylphosphate  
 107070-32-6 107070-33-7,  
 Diethylaminedimethylphosphate 107070-34-8,  
 Dibutylaminedimethylphosphate  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for polymerization of cyclic carbonates)

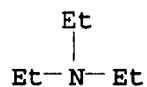
RN 86695-30-9 HCAPLUS

CN Phosphoric acid, dibutyl ester, compd. with N,N-diethylethanamine  
 (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8

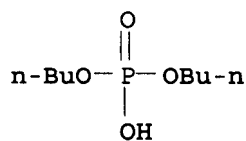
CMF C6 H15 N



CM 2

CRN 107-66-4

CMF C8 H19 O4 P



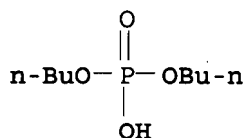
RN 107070-32-6 HCAPLUS

CN Phosphoric acid, dibutyl ester, compd. with N,N-dimethyl-1,4-benzenediamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 107-66-4

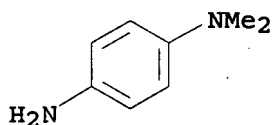
CMF C8 H19 O4 P



CM 2

CRN 99-98-9

CMF C8 H12 N2



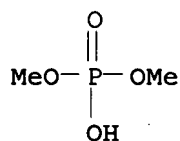
RN 107070-33-7 HCAPLUS

CN Phosphoric acid, dimethyl ester, compd. with N-ethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 813-78-5

CMF C2 H7 O4 P



CM 2

CRN 109-89-7

CMF C4 H11 N



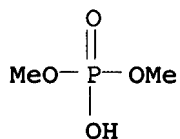
RN 107070-34-8 HCAPLUS

CN Phosphoric acid, dimethyl ester, compd. with N-butyl-1-butanamine  
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 813-78-5

CMF C2 H7 O4 P



CM 2

CRN 111-92-2

CMF C8 H19 N



IC ICM C08G063-62

ICS C08G063-38

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 67

IT 96-54-8, 1-Methylpyrrole 98-94-2, N,N-Dimethylcyclohexylamine  
 103-83-3, N,N-Dimethylbenzylamine 109-02-4, 4-Methylmorpholine  
 111-92-2, Dibutylamine 121-44-8, uses and miscellaneous  
 280-57-9, Triethylenediamine 998-40-3, Tributylphosphine  
 3001-72-7 6674-22-2, 1,8-Diazabicyclo[5.4.0]undec-7-ene

RL: CAT (Catalyst use); **USES (Uses)**  
(catalysts, containing phosphate esters, for polymerization of cyclic carbonates)

IT 86695-30-9, Triethylaminedibutylphosphate  
107070-32-6 107070-33-7,  
Diethylaminedimethylphosphate 107070-34-8,  
Dibutylaminedimethylphosphate  
RL: CAT (Catalyst use); **USES (Uses)**  
(catalysts, for polymerization of cyclic carbonates)

L40 ANSWER 21 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1986:592261 HCAPLUS  
DOCUMENT NUMBER: 105:192261  
TITLE: Thermosetting epoxy resin mixtures  
INVENTOR(S): Kerimis, Dimitrios; Mueller, Hanns Peter;  
Uerdingen, Walter; Heine, Heinrich  
PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.  
SOURCE: Ger. Offen., 37 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3447251	A1	19860626	DE 1984-3447251	198412 22
EP 191926	A1	19860827	EP 1985-115637	198512 09
EP 191926	B1	19900131		
R: CH, DE, FR, GB, IT, LI				
US 4689376	A	19870825	US 1985-808176	198512 12
JP 61155422	A	19860715	JP 1985-283146	198512 18
JP 05070650	B	19931005		
PRIORITY APPLN. INFO.:			DE 1984-3447251	A 198412 22

OTHER SOURCE(S): MARPAT 105:192261  
AB Amine or quaternary ammonium (thio)phosph(on)ates are useful as latent catalysts for the crosslinking of epoxy resins by anhydrides. Thus, stirring 112 parts triethylenediamine and 1240 parts MePO(OMe)<sub>2</sub> at 100° for 8 h and stripping in vacuo gave 355 parts colorless, crystalline salt. A mixture of diglycidyl 1,2-cyclohexanedicarboxylate (viscosity 900 mPa-s at 25°) 100, methylhexahydrophthalic anhydride 100, and this salt 2 parts had viscosity 540, 750, 780, 1000, and 3200 mPa-s after 0, 1, 2, 4, and 11 days, resp., at 25° and gel time at 160° 125 s,



compared with 510, 2480, 27,200, tough, solid, and 56, resp., with PhCH<sub>2</sub>NMe<sub>2</sub> as catalyst.

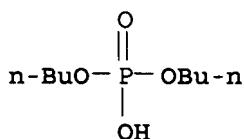
IT 107-66-4D, reaction products with amines 121-44-8D  
 , reaction products with phosphonate esters

RL: CAT (Catalyst use); **USES (Uses)**

(catalysts, latent, for crosslinking of epoxy resins)

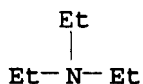
RN 107-66-4 HCAPLUS

CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IC ICM C08L063-00

ICS C08K005-09; C08K005-17; C08K005-49; C08J003-24; C08G059-68;  
 C08G059-42; H01B003-40

CC 37-6 (Plastics Manufacture and Processing)

IT 103-83-3D, reaction products with phosphonate esters  
 107-66-4D, reaction products with amines 111-92-2D,  
 reaction products with phosphonate esters 121-44-8D,  
 reaction products with phosphonate esters 280-57-9D, reaction  
 products with phosphonate esters 756-79-6D, reaction products with  
 amines

RL: CAT (Catalyst use); **USES (Uses)**

(catalysts, latent, for crosslinking of epoxy resins)

L40 ANSWER 22 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1986:406978 HCAPLUS

DOCUMENT NUMBER: 105:6978

TITLE: Butadiene polymers with specified microstructure  
 and properties

INVENTOR(S): Ikematsu, Takeshi; Hattori, Yasuo; Inoki,  
 Yoshihiro; Tanaka, Mitsuhiro

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan

SOURCE: Ger. Offen., 64 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

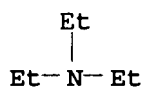
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 3523613	A1	19860116	DE 1985-3523613	198507 02

DE 3523613	C2	19930121	<--	
JP 61016753	A	19860124	JP 1984-136455	19840703
JP 61019611	A	19860128	JP 1984-138950	19840706
JP 03070726	B	19911108	<--	
JP 61097311	A	19860515	JP 1984-217296	19841018
JP 03059083	B	19910909	<--	
FR 2567135	A1	19860110	FR 1985-9957	19850628
FR 2567135	B1	19890113	<--	
GB 2161169	A	19860108	GB 1985-16627	19850701
GB 2161169	B	19880420	<--	
DE 3546753	C2	19921112	DE 1985-3546753	19850702
US 4931376	A	19900605	US 1989-387428	19890728
PRIORITY APPLN. INFO.:			JP 1984-136455	A 19840703
			JP 1984-138950	A 19840706
			JP 1984-217296	A 19841018
			US 1985-748555	B1 19850625
AB	Butadiene homopolymers or copolymers with other dienes with trans-1,4-microstructure 80-95%, polydispersity 1.2-4, m.p. (DSC) 40-130°, and boiling cyclohexane-insol. fraction ≤1% have good processability and phys. properties. Thus, heating 300 g hexane solution of butadiene with 0.08 mmol La bis(2-ethylhexyl) phosphate and 0.32 mmol Bu2Mg at 75° for 90 min gave a polymer with conversion 86%, trans and vinyl microstructure 89 and 6%, weight-average mol. weight 160,000, and polydispersity 1.2.			
IT	121-44-8, uses and miscellaneous 45324-95-6 100477-70-1 102036-51-1 102840-64-2			

RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysts, for polymerization of butadiene with controlled  
 microstructure)

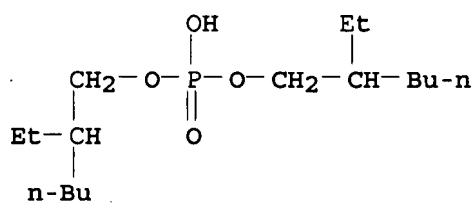
RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



RN 45324-95-6 HCAPLUS

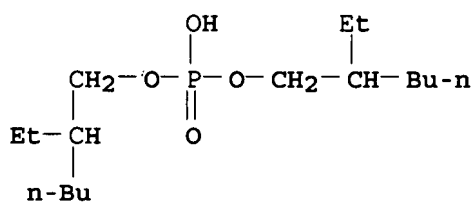
CN Phosphoric acid, bis(2-ethylhexyl) ester, lanthanum(3+) salt (9CI)  
 (CA INDEX NAME)



● 1/3 La(III)

RN 100477-70-1 HCAPLUS

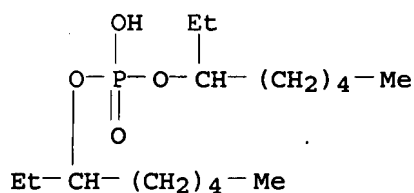
CN Phosphoric acid, bis(2-ethylhexyl) ester, cerium(3+) salt (9CI) (CA  
 INDEX NAME)



● 1/3 Ce(III)

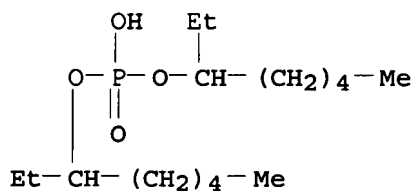
RN 102036-51-1 HCAPLUS

CN 3-Octanol, hydrogen phosphate, lanthanum(3+) salt (9CI) (CA INDEX  
 NAME)



## ● 1/3 La(III)

RN 102840-64-2 HCAPLUS  
 CN 3-Octanol, hydrogen phosphate, cerium(3+) salt (9CI) (CA INDEX NAME)



## ● 1/3 Ce(III)

IC ICM C08F036-06  
 ICS C08F004-50; C08F004-12; C08F004-48; C08F004-52; A41G003-00  
 CC 35-3 (Chemistry of Synthetic High Polymers)  
 IT 60-29-7, uses and miscellaneous 97-93-8, uses and miscellaneous  
 109-99-9, uses and miscellaneous 110-18-9 121-44-8, uses  
 and miscellaneous 1191-47-5 2388-10-5 4439-90-1 7439-91-0D,  
 naphthenates 17589-14-9 22065-26-5 25440-26-0  
 45324-95-6 60756-59-4 60903-69-7 79968-72-2  
 82333-24-2 87856-24-4 92898-62-9 92898-66-3 94808-57-8  
 100477-70-1 101949-81-9 101949-82-0 101949-83-1  
 101949-84-2 101962-31-6 102036-45-3 102036-46-4 102036-47-5  
 102036-48-6 102036-49-7 102036-50-0 102036-51-1  
 102036-53-3 102840-62-0 102840-64-2  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for polymerization of butadiene with controlled  
 microstructure)

L40 ANSWER 23 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1986:177792 HCAPLUS  
 DOCUMENT NUMBER: 104:177792  
 TITLE: Prevention of spotting in thermal imaging  
 compositions  
 INVENTOR(S): Miller, Alan G.  
 PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA  
 SOURCE: Eur. Pat. Appl., 29 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 159874	A2	19851030	EP 1985-302573	198504 12
<--				
EP 159874	A3	19860604		
EP 159874	B1	19910724		
R: CH, DE, FR, GB, IT, LI, NL				
CA 1236299	A1	19880510	CA 1985-475897	198503 07
<--				
AU 8539800	A	19851024	AU 1985-39800	198503 13
<--				
AU 580034	B2	19881222		
BR 8501734	A	19851210	BR 1985-1734	198504 12
<--				
JP 60234885	A	19851121	JP 1985-80044	198504 15
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JP 06071823	B	19940914		
US 4917730	A	19900417	US 1985-788162	198510 16
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PRIORITY APPLN. INFO.:			US 1984-600474	A 198404 16

OTHER SOURCE(S): MARPAT 104:177792

AB Thermal imaging compns. consist of (a)  $\geq 1$  leuco dye, (b) a nitrate, and (c)  $\geq 1$  base having a conjugate  $pK_a \geq 0$ . The base serves as an antispotting agent for the transparency film during the manufacturing process. The leuco dye is selected from the group consisting of styryl, phenoxazine, phenothiazine, and phenazine derivs. The base is selected from amines, amides, amine oxides, ureas, carboxylic acid salts, alc. salts, thiol salts, P-containing acid salts, phosphines, inorg. salts, and salts of complexes of carboxylic acids having  $pK_a = 0-25$ . Thus, by addition of 0.1 mmol of N-N bis(2-hydroxyethyl)aniline, the spotting was totally removed from a thermal imaging film.

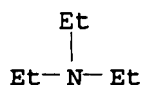
IT 121-44-8, uses and miscellaneous 10432-15-2  
32509-12-9

RL: USES (Uses)

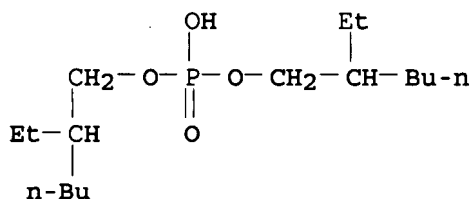
(as antispotting agent in thermal imaging composition)

RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

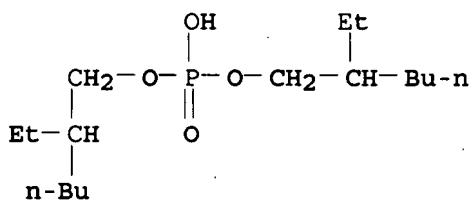


RN 10432-15-2 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, nickel(2+) salt (2:1) (CA INDEX NAME)



● 1/2 Ni(II)

RN 32509-12-9 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, lithium salt (8CI, 9CI)  
 (CA INDEX NAME)



● Li

IC ICM B41M005-26  
 CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 57-13-6, uses and miscellaneous 60-35-5, uses and miscellaneous  
 62-53-3, uses and miscellaneous 91-63-4 91-66-7 100-61-8, uses  
 and miscellaneous 102-06-7 109-08-0 109-89-7, uses and  
 miscellaneous 110-86-1, uses and miscellaneous 121-44-8,  
 uses and miscellaneous 124-41-4 127-19-5 253-82-7 288-47-1  
 289-80-5 552-38-5 555-24-8 632-22-4 694-59-7 829-85-6  
 1310-58-3, uses and miscellaneous 1313-82-2, uses and  
 miscellaneous 1619-34-7 2180-18-9 3264-82-2 10432-15-2  
 16761-13-0 22208-42-0 30947-30-9 32509-12-9  
 52829-07-9 101678-04-0 101819-98-1  
 RL: **USES (Uses)**  
 (as antispotting agent in thermal imaging composition)

L40 ANSWER 24 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1985:490203 HCAPLUS

DOCUMENT NUMBER: 103:90203  
 TITLE: Tool grinding oil  
 PATENT ASSIGNEE(S): Yushiro Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

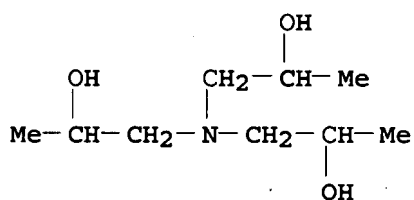
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60069198	A	19850419	JP 1983-165139	19830909
JP 02014399	B	19900406	JP 1983-165139	19830909

PRIORITY APPLN. INFO.: <--

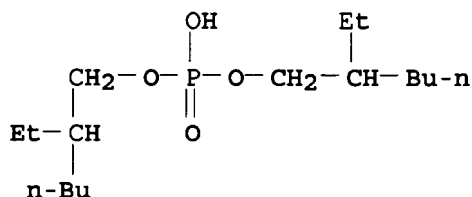
AB The title oil contains amines and  $\geq 1$  P compds. selected from RO(R1O)POH [I; R = H, R2, R2(OCH2CH2)m; R1 = R2, R2(OCH2CH2)n (R2 = C4-24 alkyl, C4-24 alkenyl, aryl, C7-24 aralkyl, C7-24 alkylaryl; m, n = integer 1-20)]. The oil can be used to grind tools without burning or corroding the materials. Thus, a mixture of mineral oil (mixture of SAE number 10 and SAE number 20), I (R = H; R1 = octadecyl) [24219-16-7], triisopropanolamine [122-20-3], and oleyl alc. [143-28-2] was used in grinding SKH-9 Fe alloy without metal burning or corrosion.

IT 122-20-3 298-07-7  
 RL: **USES (Uses)**  
 (cutting oils containing)

RN 122-20-3 HCAPLUS  
 CN 2-Propanol, 1,1',1''-nitrilotris- (CA INDEX NAME)



RN 298-07-7 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



IC ICM C10M141-10  
 ICI C10M141-10, C10M137-04, C10M133-04; C10N030-06, C10N030-12, C10N040-22  
 CC 51-8 (Fossil Fuels, Derivatives, and Related Products)  
 IT 78-96-6 101-83-7 110-97-4 122-20-3 143-28-2  
 298-07-7 701-64-4 838-85-7 1116-76-3 1623-07-0  
 1623-08-1 1838-19-3 2310-89-6 2958-09-0 4712-55-4  
 9021-89-0 9071-85-6 10542-07-1 14450-07-8 17176-77-1  
 21302-09-0 24219-16-7 25088-57-7 25852-45-3 26569-08-4  
 26982-05-8 28258-93-7 28603-06-7 30526-26-2 36119-17-2  
 39359-12-1 49862-22-8 50571-12-5 94060-69-2 97701-25-2  
 97701-26-3 97701-27-4 97701-28-5 97701-29-6 97701-30-9  
 97701-31-0 97701-32-1 97701-33-2 97701-34-3 97701-40-1  
 97794-96-2

RL: **USES (Uses)**

(cutting oils containing)

L40 ANSWER 25 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1981:426711 HCAPLUS

DOCUMENT NUMBER: 95:26711

TITLE: Titanium dioxide pigments with good dispersibility

INVENTOR(S): Koehler, Klaus; Woditsch, Peter; Rieck, Hilmar; Rodi, Fritz

PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.

SOURCE: Ger. Offen., 22 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2946549	A1	19810527	DE 1979-2946549	197911 17
EP 29137	A1	19810527	EP 1980-106568	198010 25
EP 29137 R: DE, FR, GB, IT	B1	19840222		
NO 8003287	A	19810518	NO 1980-3287	198011 03
US 4344799	A	19820817	US 1980-203010	198011 03
FI 8003550	A	19810518	FI 1980-3550	198011 13
BR 8007457	A	19810526	BR 1980-7457	198011 14



PRIORITY APPLN. INFO.:

DE 1979-2946549

A

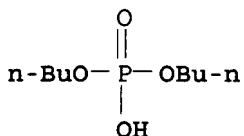
197911

17

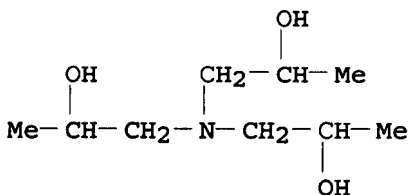
AB TiO<sub>2</sub> which has been treated with small amts. of SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> is sprayed with a hydrophobic material such as a siloxane or (BuCH<sub>2</sub>EtCH<sub>2</sub>O)<sub>2</sub>P(O)OH [298-07-7] and a hydrophilic compound such as N(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>3</sub> (I) [102-71-6] to prepare pigments with good dispersibility in lacquers, plastics, and paper. Thus, a TiO<sub>2</sub> pigment treated with 0.8% SiO<sub>2</sub> and 2.5% Al<sub>2</sub>O<sub>3</sub> is sprayed with 0.25% OH-terminated siloxane (mol. weight 490) and 0.75% I and milled to prepare a pigment which dispersed rapidly in a xylene solution of an alkyd resin.

IT 107-66-4 122-20-3 298-07-7  
 RL: **USES (Uses)**  
 (titanium dioxide pigments containing, for improved dispersibility)

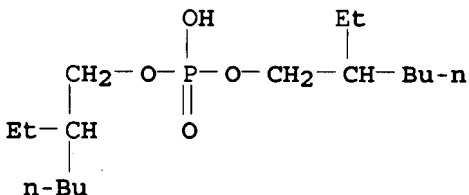
RN 107-66-4 HCAPLUS  
 CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



RN 122-20-3 HCAPLUS  
 CN 2-Propanol, 1,1',1''-nitrilotris- (CA INDEX NAME)



RN 298-07-7 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



IC C09C001-36; C09D017-00; C09D005-00  
 CC 42-5 (Coatings, Inks, and Related Products)  
 IT 102-71-6, uses and miscellaneous 107-66-4 122-20-3  
 298-07-7  
 RL: **USES (Uses)**  
 (titanium dioxide pigments containing, for improved dispersibility)

L40 ANSWER 26 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1981:140620 HCAPLUS  
 DOCUMENT NUMBER: 94:140620  
 TITLE: Polyesters  
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55115425	A	19800905	JP 1979-20794	19790226
JP 63015296	B	19880404	JP 1979-20794	19790226

PRIORITY APPLN. INFO.: <--

AB A polyester based on dicarboxylic acids [mainly terephthalic acid (I)] and glycols [mainly ethylene glycol (II)] is prepared by adding I and II to bis( $\beta$ -hydroxyethyl) terephthalate (III) and/or its oligomer, esterifying it, and adding (a)  $\geq 1$  II-soluble Mg or Mn compound, (b)  $\geq 1$  tertiary amine or quaternary ammonium hydroxide, and (c)  $\geq 1$  P compound chosen from phosphorous and/or phosphoric acid and/or their esters at  $2 \leq A \leq 40$ ,  $0.5 \leq B \leq 15$ , and  $0.8 \leq A/C \leq 5.0$ , where A, B, and C are the number of g-atoms of Mg or Mn in a, of N in b, and of P in c, resp., per 10 g polyester. Thus, III 90, I 86.5, and II 37.1 parts were esterified. To 105 parts of the product (100 parts polyester [25038-59-9]), Mg(OAc) $\cdot$ 2.4H<sub>2</sub>O 0.085 (A = 3.96), methyl acid phosphate (1:1 mixture of mono- and dimethyl phosphate [813-78-5]) 0.030, Sb<sub>2</sub>O<sub>3</sub> 0.030, Et<sub>4</sub>NOH [77-98-5] (B = 1.02, A/c = 1.56) 0.015 part were added and the mixture was heated at 255-85° for 1 h, during which time the pressure was lowered from 760 to 1 mm. The reaction was completed at 285°/0.5-1 mm after 2 h. The polyester had intrinsic viscosity 0.641 (o-chlorophenol 25°), softening point 259.9°, diethylene glycol content 1.07%, 30.5 CO<sub>2</sub>H ends/106 g, 5.4% haze, L 45.3 and b 3.5 for color difference, and heat resistance (measured by difference in intrinsic viscosities after 8 and 68 min at 300° under N) 0.107. The polyester was biaxially drawn 3.3 and 3.8 times its original length to obtain a 50  $\mu$ -thick film. It cast well using a casting speed of 45 m/min under 10 kV, and had film haze 0.3%.

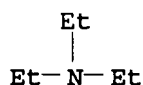
IT 121-44-8, preparation 812-00-0 813-78-5

RL: USES (Uses)

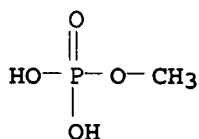
(poly(ethylene terephthalate) manufacture by polycondensation in present of)

RN 121-44-8 HCAPLUS

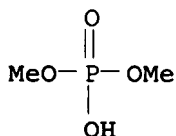
CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



RN 812-00-0 HCAPLUS  
CN Phosphoric acid, monomethyl ester (CA INDEX NAME)



RN 813-78-5 HCAPLUS  
CN Phosphoric acid, dimethyl ester (CA INDEX NAME)



IC C08G063-22; G03C001-76; G11B005-62; H01B003-42  
CC 36-3 (Plastics Manufacture and Processing)  
IT 77-98-5 121-44-8, preparation 142-72-3 812-00-0  
813-78-5 1309-64-4, uses and miscellaneous 2180-18-9  
RL: **USES (Uses)**  
(poly(ethylene terephthalate) manufacture by polycondensation in present of)

L40 ANSWER 27 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1979:157615 HCAPLUS

DOCUMENT NUMBER: 90:157615

TITLE: Intramolecular hydrolysis of glycinamide and glycine dipeptides coordinated to cobalt(III).  
2. Reactions of the cis-[Co(en)2(OH2/OH)(glyNHR)]3+/2+ ions (R = H, CH2CO2C3H7, CH2CO2-) and the effect of buffer species

AUTHOR(S): Boreham, C. J.; Buckingham, D. A.; Keene, F. R.  
CORPORATE SOURCE: Res. Sch. Chem., Aust. Natl. Univ., Canberra, Australia

SOURCE: Journal of the American Chemical Society (1979), 101(6), 1409-21  
CODEN: JACSAT; ISSN: 0002-7863

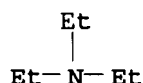
DOCUMENT TYPE: Journal

LANGUAGE: English

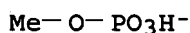
AB The intramol. addition of Co(III)-bound H2O and OH- to glycinamide, glycyglycine iso-Pr ester, and glycyglycine also coordinated to Co(III) in the cis-[Co(en)2(OH2/OH)(glyNHR)]3+/2+ ions (R = H, CH2CO2C3H7, CH2CO2-) was investigated both in the the absence and presence of buffers. For the dipeptide complex (R = CH2CO2C3H7) both the aqua and hydroxo species form [Co(en)2(glyO)]2+, but loss of OH- also occurs resulting in the chelated amide

[Co(en)<sub>2</sub>(glyNHR)]<sup>3+</sup>. A combination of rate and product anal. data suggests that the initial cyclization is rate determining under all conditions. Buffer species act as a general bases in this rate-determining process, but they also enhance the formation of the hydrolysis product. Coordination H<sub>2</sub>O is more reactive than coordinated OH<sup>-</sup> owing largely to a more pos. ΔS\*.

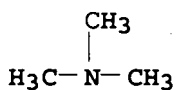
IT 121-44-8, uses and miscellaneous  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysis by, of hydrolysis of glycine peptide in cobalt complex)  
 RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IT 48000-95-9  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysis by, of hydrolysis of glycydamides in cobalt complexes)  
 RN 48000-95-9 HCAPLUS  
 CN Phosphoric acid, monomethyl ester, ion(1-) (9CI) (CA INDEX NAME)



IT 75-50-3, uses and miscellaneous  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysis by, of hydrolysis of glycydamine in cobalt complex)  
 RN 75-50-3 HCAPLUS  
 CN Methanamine, N,N-dimethyl- (CA INDEX NAME)



CC 67-2 (Catalysis and Reaction Kinetics)  
 IT 56-14-4, uses and miscellaneous 121-44-8, uses and miscellaneous 142-44-9, uses and miscellaneous 23297-34-9, uses and miscellaneous  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysis by, of hydrolysis of glycine peptide in cobalt complex)  
 IT 71-50-1, uses and miscellaneous 3229-70-7, uses and miscellaneous 14265-44-2, uses and miscellaneous 48000-95-9 69995-99-9 69996-01-6  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysis by, of hydrolysis of glycydamides in cobalt complexes)  
 IT 75-50-3, uses and miscellaneous 126-44-3, uses and miscellaneous 3812-32-6, uses and miscellaneous 14124-67-5 14280-30-9, uses and miscellaneous 14609-74-6, uses and miscellaneous 15390-83-7 15584-04-0 16554-54-4 24573-38-4 69996-00-5, uses and miscellaneous  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysis by, of hydrolysis of glycydamine in cobalt complex)

L40 ANSWER 28 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1978:511200 HCAPLUS  
 DOCUMENT NUMBER: 89:111200  
 TITLE: Unsaturated polyester resin  
 INVENTOR(S): Makimura, Osamu; Miyake, Hideo  
 PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan  
 SOURCE: Jpn. Tokkyo Koho, 10 pp.  
 CODEN: JAXXAD  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53009275	B	19780404	JP 1972-122277	19721206

PRIORITY APPLN. INFO.: JP 1972-122277 A  
 19721206

AB A high-mol.-weight saturated polyester is treated with a glycol, possibly in the presence of an alkylamine or a cycloalkylamine, to give a reaction product, which is treated with an unsatd. dicarboxylic acid or its ester in the presence of a P acid or its derivative. The resulting unsatd. polyester is mixed with styrene (I) to give an unsatd. polyester resin. Thus, a mixture of 1200 parts poly(ethylene terephthalate) scrap containing 30% glass fibers and 234 parts neopentyl glycol was heated 2 h at 220° under N, cooled to 170°, mixed with dimethyl phosphate [813-78-5] 0.35, fumaric acid 435, and propylene glycol 234 parts, and heated 3.5 h at 210° to give an unsatd. polyester [57399-09-4] (with acid value 19), which was mixed with 45% I, giving an unsatd. polyester resin with APHA color <100.

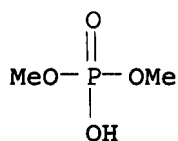
IT 121-44-8, uses and miscellaneous  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for depolymn. of saturated polyester scrap, in manufacture of unsatd. polyesters)

RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

Et  
 |  
 Et-N-Et

IT 813-78-5  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for unsatd. polyester manufacture from depolymd. saturated polyester scrap)

RN 813-78-5 HCAPLUS  
 CN Phosphoric acid, dimethyl ester (CA INDEX NAME)



IC C08F299-04  
 CC 36-3 (Plastics Manufacture and Processing)  
 IT 109-89-7, uses and miscellaneous 111-92-2 121-44-8, uses  
 and miscellaneous  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysts, for depolymn. of saturated polyester scrap, in manufacture of  
 unsatd. polyesters)  
 IT 115-86-6 813-78-5 7664-38-2, uses and miscellaneous  
 13598-36-2  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalysts, for unsatd. polyester manufacture from depolymd. saturated  
 polyester scrap)

L40 ANSWER 29 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1976:45227 HCAPLUS  
 DOCUMENT NUMBER: 84:45227  
 TITLE: Chloral copolymers  
 INVENTOR(S): Vogl, Otto F.  
 PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA  
 SOURCE: U.S., 23 pp. Division of U.S. 3,775,371.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3917546	A	19751104	US 1973-352387	197304 18
US 3668184	A	19720606	US 1969-886739	196912 19
US 3775371	A	19731127	US 1972-227684	197202 18
US 3932318	A	19760113	US 1974-530438	197412 06
PRIORITY APPLN. INFO.:			US 1969-886739	A3 196912 19
			US 1972-227684	A3 197202 18

<--

US 1966-558631	A3	196606 20
<--		
US 1966-580217	A2	196609 19
<--		
US 1968-731622	A2	196805 23
<--		
US 1973-352387	A3	197304 18

AB Chloral (I) [75-87-6] was copolymd. with  $\geq 1$  isocyanate, isothiocyanate, diisocyanate, diisothiocyanate, or ketene compound to form nonflammable copolymers. The monomer mixture was prepared at a temperature above the threshold polymerization temperature of the mixture, cooled below

the threshold polymerization temperature, and kept quiescent during the polymerization

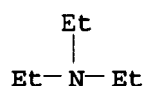
Thus, a mixture of 30 g I and 2.7 g Ph isocyanate was heated to 65°, and the quiescent mixture was polymerized 1 hr at -50° in the presence of 0.4 ml 1M Li tert-butoxide in cyclohexane to yield the insol. chloral-phenyl isocyanate copolymer [25838-94-2].

IT 121-44-8, uses and miscellaneous 26482-14-4

RL: CAT (Catalyst use); **USES (Uses)**  
(catalysts, for chloral polymerization)

RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



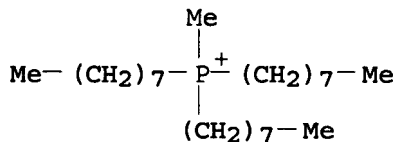
RN 26482-14-4 HCAPLUS

CN Phosphonium, methyltrioctyl-, dimethyl phosphate (8CI, 9CI) (CA INDEX NAME)

CM 1

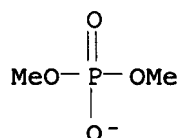
CRN 45292-09-9

CMF C25 H54 P



CM 2

CRN 7351-83-9  
CMF C2 H6 O4 P



INCL 260002500F

CC 36-3 (Plastics Manufacture and Processing)

IT 56-34-8 100-74-3 102-87-4 110-86-1, uses and miscellaneous

121-44-8, uses and miscellaneous 603-32-7 603-36-1

1038-95-5 1605-53-4 1663-45-2 3607-17-8 3746-01-8

5587-39-3 6163-58-2 13410-61-2 13504-79-5 17663-89-7

18631-95-3 21259-67-6 23250-03-5 ~~26482-14-4~~

32394-38-0 32394-45-9 32394-46-0 32395-05-4 35612-21-6

57959-57-6 57959-58-7 57959-59-8 57959-60-1 57959-62-3

57959-63-4 57959-64-5 57959-65-6 57959-66-7 57959-67-8

57959-68-9 57959-69-0 57959-71-4 57959-72-5 57959-73-6

57959-74-7 57959-75-8 57959-76-9 57959-77-0 57959-78-1

57969-11-6

RL: CAT (Catalyst use); **USES (Uses)**

(catalysts, for chloral polymerization)

L40 ANSWER 30 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1971:8381 HCAPLUS

DOCUMENT NUMBER: 74:8381

TITLE: Liquid developing bath for electrophotography

PATENT ASSIGNEE(S): Ricoh Co., Ltd.

SOURCE: Fr. Demande, 19 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

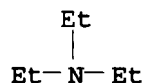
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

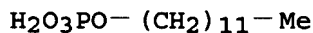
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 2009688		19700206	FR 1969-17916	196905 30
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DE 1926918			DE	
GB 1276363			GB	
US 3681243		19720801	US	196905 22
			<--	
PRIORITY APPLN. INFO.:			JP	196805 30
			<--	
			JP	196903 25
			<--	



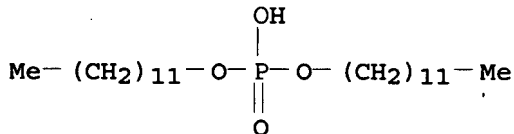
- AB Better image separation is achieved and spotty texture due to irregularities in the surface, and consequently in its charge, is avoided by including in the developer (0.1-10% based on the pigment) one of the following: Decalin, azobenzene, camphor, citral, monomeric styrene, a divalent metal bis(di-C3-18 alkyl dithiophosphate), di-Na C2-12 alkyl phosphate, mono-Na di-C2-12 alkyl phosphate, tri-C3-18 alkyl phosphate, alkali metal C12-16 alkyl sulfate, C4-16 alc., C11-15 carboxylic acid, phthalic acid, C1-4 alkyl phthalate, NH3, a C2-17 alkylamine, or an araldehyde. Thus, a mixture of the following is ball-milled for 16 hr: carbon black 5, Nikanol HP-100 (charge control agent) 30, Plexol 966 (dispersing resin) 10, PhMe 45, and a 5% PhMe solution of the Ba salt of one mole each of diisopropyl and of diisobutyl dithiophosphate 10 g. Of this dispersion 5 g is distributed in 1 l. of Isopar-H solvent.
- IT 121-44-8, uses and miscellaneous 2627-35-2  
7057-92-3 24613-62-5  
RL: **USES (Uses)**  
(electrophotographic developing solns. containing)
- RN 121-44-8 HCAPLUS
- CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



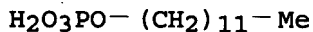
- RN 2627-35-2 HCAPLUS
- CN Phosphoric acid, monododecyl ester (CA INDEX NAME)



- RN 7057-92-3 HCAPLUS
- CN Phosphoric acid, didodecyl ester (CA INDEX NAME)



- RN 24613-62-5 HCAPLUS
- CN Phosphoric acid, monododecyl ester, monosodium salt (8CI, 9CI) (CA INDEX NAME)



- IC G03G
- CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT 57-10-3, uses and miscellaneous 67-63-0, uses and miscellaneous  
 76-22-2 78-40-0 88-99-3, uses and miscellaneous 91-17-8  
 100-42-5, uses and miscellaneous 103-33-3 104-55-2  
 121-44-8, uses and miscellaneous 123-72-8 124-30-1  
 143-07-7, uses and miscellaneous 143-08-8 151-21-3, uses and  
 miscellaneous 544-63-8, uses and miscellaneous 1120-01-0  
 2627-35-2 2929-95-5 4376-18-5 4706-78-9 5392-40-5  
 7057-92-3 24613-62-5 30342-11-1 30342-12-2  
 36653-82-4

RL: **USES (Uses)**

(electrophotographic developing solns. containing)

L40 ANSWER 31 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1970:67455 HCAPLUS

DOCUMENT NUMBER: 72:67455

TITLE: Compounds containing vanadium, oxygen and  
 phosphorus, and catalysts using same for  
 polymerization of unsaturated compounds

INVENTOR(S): Bayer, John W.; Grinonneau, William C.

PATENT ASSIGNEE(S): Owens-Illinois, Inc.

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 3488334	A	19700106	US 1965-500329	196510 21

PRIORITY APPLN. INFO.:

US 1965-500329

A

196510  
21

AB A catalyst mixture containing a compound obtained by reaction of a V oxide with an organic P-O compound in the presence of a polar additive, and an organoaluminum compound, is used in the polymerization of ethylenically unsatd. monomers. Thus, a mixture of V2O5 7.3, PhPO3H2 25.3, and MeOH 2.56 g in 200 ml C6H6 was refluxed at 80° for 3 hr to give a mixture, which was dried at 50° for 12 hr. The catalyst mixture (0.5 g) was added with 0.5 ml Et2AlCl to 300 ml C7H16 and the mixture was flushed with N before C2H4 was introduced at 20 psig. The temperature was raised to 57° and the polymerization continued for 2 hr to give 78 g polyethylene. When the V catalyst component was prepared in the absence of the polar compound, or the P compound, or with H2O as a reaction medium, no polymer was formed, and low polymer yields were obtained by using di-Bu phosphite and dioctyl H phosphate. Other polar additives used were PrOH, tert-BuOH, dioxane, tetrahydrofuran, PhSO3H, HOAc, Et2O, H2O, and HCO2H. Polybutadiene and an C2H4-propylene copolymer were also prepared

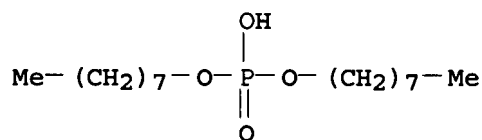
IT 3115-39-7

RL: CAT (Catalyst use); **USES (Uses)**

(catalysts, containing vanadium oxide, for polymerization of olefins).

RN 3115-39-7 HCAPLUS

CN Phosphoric acid, dioctyl ester (CA INDEX NAME)



IT 121-44-8, uses and miscellaneous

RL: **USES (Uses)**

(olefin polymers prepared in presence of, catalytic activity in relation to)

RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

Et

Et-N-Et

IC C08F001-42A; C08F001-56B

INCL 260088200

CC 35 (Synthetic High Polymers)

IT 1571-33-1 1809-19-4 3115-39-7

RL: CAT (Catalyst use); **USES (Uses)**

(catalysts, containing vanadium oxide, for polymerization of olefins)

IT 60-29-7, uses and miscellaneous 64-18-6, uses and miscellaneous

64-19-7, uses and miscellaneous 67-56-1, uses and miscellaneous

71-23-8, uses and miscellaneous 75-65-0 98-11-3, uses and

miscellaneous 109-89-7, uses and miscellaneous 109-99-9, uses

and miscellaneous 121-44-8, uses and miscellaneous

123-91-1, uses and miscellaneous 7732-18-5

RL: **USES (Uses)**

(olefin polymers prepared in presence of, catalytic activity in relation to)

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